TECHNICAL MANUAL
UNDERCOUNTER DISHMACHINE

GS 302

Installation, Operation, and Maintenance Instructions

Insinger Machine Company
6245 State Road
Philadelphia, PA 19135-2996

800.344.4802
Fax 215.624.6966
www.insingermachine.com

Thank you for purchasing this quality Insinger product.

On the space provided below please record the model, serial number and start-up date of this unit:

Model:_____

Serial Number:_____

Start-Up Date:_____

When referring to this equipment please have this information available.

Each piece of equipment at Insinger is carefully tested before shipment for proper operation. If the need for service should arise please contact your local Authorized Insinger Service Company.

A Service Network Listing is provided on our web site, www.insingermachine.com or call Insinger at 800-344-4802 for your local authorized servicer.

For proper activation of the *Insinger Limited Warranty* a SureFire™ Start-Up & Check-Out Service should be completed on your machine. Refer to the Introduction section in this manual for an explanation of Insinger SureFire™ Start-Up & Check-Out Program.

Please read the Insinger Limited Warranty and all installation and operation instructions carefully before attempting to install or operate your new Insinger product.

To register your machine for warranty by phone, fax or the internet or for answers to question concerning installation, operation, or service contact our Technical Services Department:

TECHNICAL SERVICE CONTACTS	
Toll-Free	**800-344-4802**
Fax	**215-624-6966**
E-mail	**service@insingermachine.com**
Web	**www.insingermachine.com**

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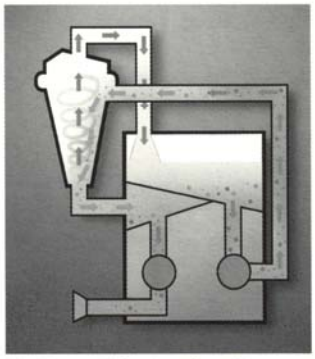
Insinger

Item #_____

GS 302 UNDERCOUNTER
AUTOMATIC DISHWASHER

CSI - 11400



Mediamat™ Cyclo Filter System
Fine debris and floating particles are filtered out of the wash water during the wash process.

DESIGN

Automatic, hot water sanitizing undercounter dishwasher with timed wash and rinse cycle. Fully automatic operation with color-coded pushbutton controls. Capacity is 22 racks per hour, or 550 dishes per hour. Equipped with three levels of controls — operational, management, and service diagnostic.

STANDARD EQUIPMENT

- 20 fixed lower wash jets
- 6 revolving upper wash jets
- 7 revolving lower rinse jets, precisely positioned along S/S rinse arm
- 7 revolving upper rinse jets, precisely positioned along S/S arm
- Independent wash and rinse systems
- Automatic tank fill
- Integral detergent dispenser and reservoir
- Integral rinse-aid dispenser and reservoir
- Fully automatic operation
- Intelligent, color-coded push button controls, including power on/off, management/ service and drain buttons
- Food soil strainer system, (scrap screen, scrap basket)
- Mediamat™ Cyclo Filter System
- Easily removable scrap basket
- Thermostatic controls for the wash tank and final rinse booster
- ThermoStop™ final rinse temperature control
- Electric immersion tank heat
- Low water protection for heater
- Motor overload protection
- Door interlock safety switch
- Flexible water connection
- Deep drawn S/S chamber with covered edges to prevent bacteria build-up
- Crowned interior ceiling to ensure clean runoff of water
- Door vent position for airing and drying machine
- Single point electrical connection for motor, controls, heater and booster
- Digital temperature readouts
- Pumped drain
- Standard wash cycle, extended wash cycle
- 2 plastic 20" x 20" racks (1 peg, 1 flat)
- Blocked scrap basket and screen alarm system

ETL LISTED NSF

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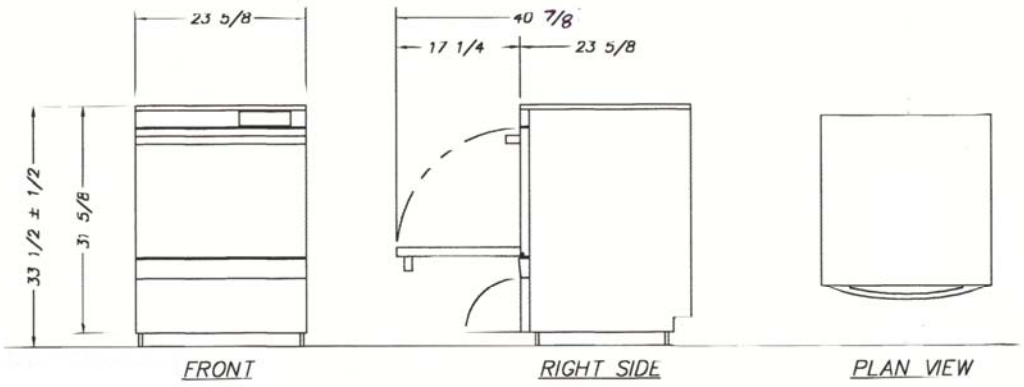

Note: For all rough in connections see Installation and Layout Detail Drawing.

SPECIFICATIONS

CONSTRUCTION - Wash tank, inside wash chamber, and all external surfaces are made of 18-8 stainless steel. Side, rear and bottom panels provided.

CONTROLS - Front-mounted controls are easy to read with colored indicator lights for all functions, including wash and rinse temperature. Control components are mounted within machine in a splash-proof box.

WASH SYSTEM - One hp wash pump powers polypropylene lower fixed manifold and upper rotating spray arm. Integrally-molded nozzles are heat, alkalai and rust resistant.

RINSE SYSTEM - Independent rinse pump powers upper and lower rinse arms made of 18/8 stainless steel. Integral electric booster provides 180-195° F rinse water, independent of water line pressure.

DRAIN SYSTEM - Separate drain pump lifts up to 24 inches above floor level.

Capacity per hour	Tank capacity	Motor size	Electric usage (heating)	Water inlet temperature	Final rinse peak flow
22 racks 550 dishes 50 meals	4.8 gals.	1.0 hp (wash)	2.4/2.6 kw wash tank 2.6 kw booster (40°or 70° rise)	110° to 140° F	4.1 gals./min.

Final rinse consumption at 20 psi min.	Exhaust hood requirement	Time cycle	Peak rate drain flow	Shipping weight	Current draw amps	Electric w/ built-in booster
16.5 gals./hr. 0.75 gal./rack	none	NSF 193/273 seconds	9 gals./min.	175 lbs.	208/1/60 220-240/1/60	27.4 25

3M 01/03 PRINTED IN USA

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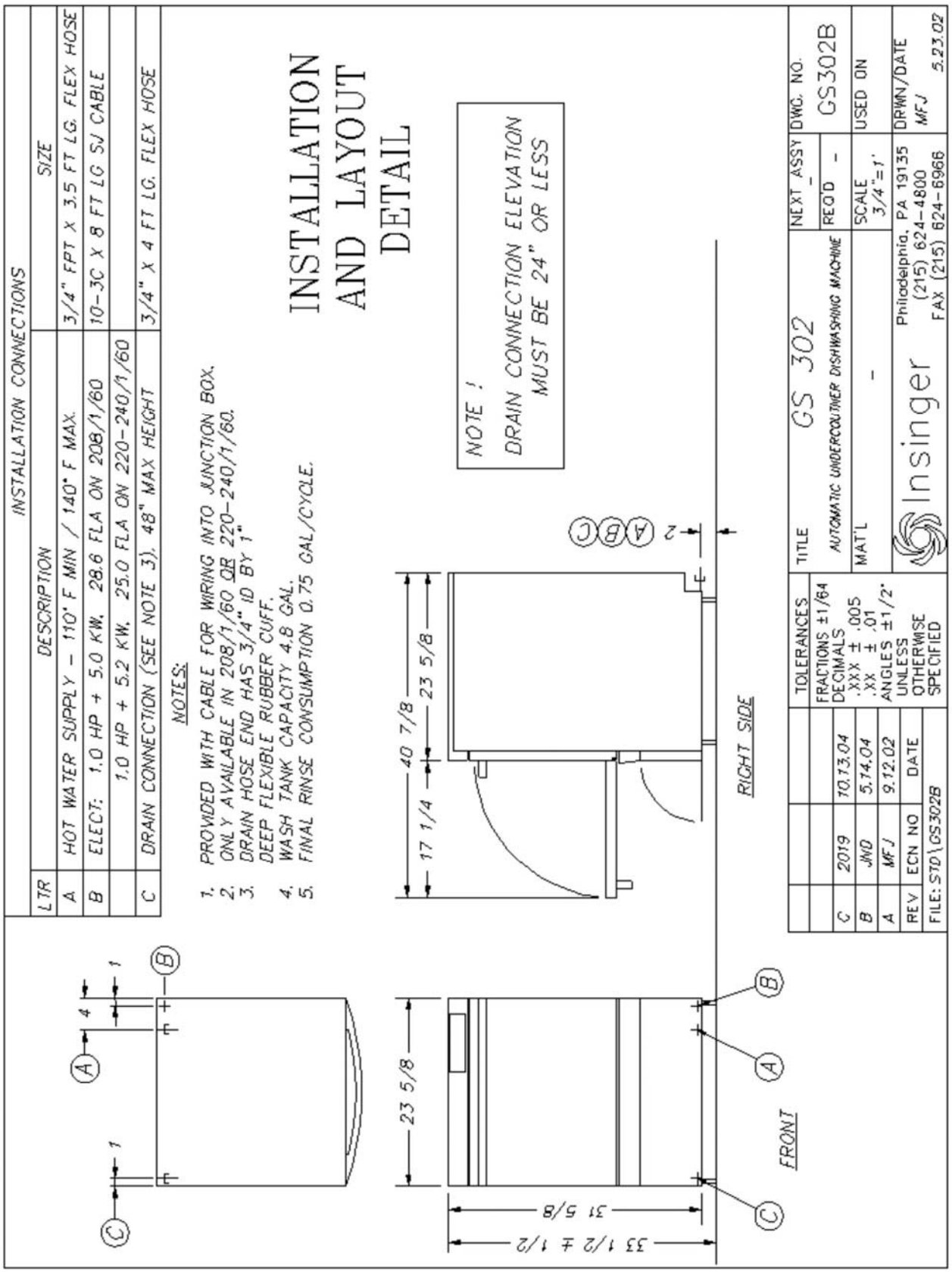

INSTALLATION CONNECTIONS
LTR
DESCRIPTION
SIZE
A
HOT WATER SUPPLY – 110° F MIN / 140° F MAX.
3/4" FPT X 3.5 FT LG. FLEX HOSE
B
ELECT: 1.0 HP + 5.0 KW. 28.6 FLA ON 208/1/60
10-3C X 8 FT LG SJ CABLE
1.0 HP + 5.2 KW. 25.0 FLA ON 220-240/1/60
C
DRAIN CONNECTION (SEE NOTE 3). 48" MAX HEIGHT
3/4" X 4 FT LG. FLEX HOSE
NOTES:
1. PROVIDED WITH CABLE FOR WIRING INTO JUNCTION BOX.
2. ONLY AVAILABLE IN 208/1/60 OR 220-240/1/60.
3. DRAIN HOSE END HAS 3/4" ID BY 1" DEEP FLEXIBLE RUBBER CUFF.
4. WASH TANK CAPACITY 4.8 GAL.
5. FINAL RINSE CONSUMPTION 0.75 GAL/CYCLE.
INSTALLATION AND LAYOUT DETAIL
NOTE !
DRAIN CONNECTION ELEVATION MUST BE 24" OR LESS
40 7/8
23 5/8
17 1/4
2
RIGHT SIDE
FRONT
33 1/2 ± 1/2
31 5/8
TOLERANCES
FRACTIONS ±1/64
DECIMALS
.XXX ± .005
.XX ± .01
ANGLES ±1/2°
UNLESS OTHERWISE SPECIFIED
C 2019 10.13.04
B JWD 5.14.04
A MFJ 9.12.02
REV ECN NO DATE
FILE: STD\GS302B
TITLE
GS 302
AUTOMATIC UNDERCOUNTER DISHWASHING MACHINE
MAT'L
-
insinger
Philadelphia, PA 19135
(215) 624-4800
FAX (215) 624-6966
NEXT ASSY
REQ'D -
SCALE 3/4"=1'
DWG. NO.
GS302B
USED ON
DRWN/DATE
MFJ 5.23.02

GS 302 UNDERCOUNTER DISHWASHER

INTRODUCTION

Purpose

The purpose of this technical manual is to provide installation, operation, cleaning and maintenance directions.

A section is provided for replacement parts.

Scope

This manual contains all pertinent information to assist in the proper installation, operation, cleaning, maintenance, and parts ordering for the Insinger GS 302 Undercounter Dishwasher.

The **installation instructions** are intended for qualified equipment installers. The **operation and cleaning instructions** are intended for the daily users of the equipment. The **maintenance and parts sections** are intended for qualified service and/or maintenance technicians. Replacement parts may be ordered directly from our factory or from your local Insinger Authorized Service Agency. You can speak to the **Insinger Technical Services Department, 800/344-4802**, or e-mail us at **service@insingermachine.com**. When calling for warranty information or replacement parts please provide the model and serial number of your Insinger Equipment. These important numbers should be noted in this manual on the spaces provided on the opening page.

Surefire™ Start-up & Check-out Program

Insinger is proud to offer our exclusive Surefire™ Start-up & Check-out Program to our commercial customers. This service is included in the purchase price of your new Insinger dishwasher. We will provide an authorized factory service technician for the initial start-up of your new Insinger dishwasher to ensure it is running at optimum levels from the very first pass. Please call the factory or your local Insinger Sales Representative to schedule this service.

NSF 3-2003 requirements for detergent and chemical sanitizer dispensers.

This machine must be operated with detergent in the integral detergent dispensing system to insure proper washing.

Intended use

The Insinger dishwasher GS 302 may only be used for cleaning plates, cups, dishes, cutlery and similar restaurant ware and commercial catering.

Any change in design or use of the dishwasher carried out without the written permission of Insinger, will lead to warranty nullification.

If damage is caused to the dishwasher due to failure to observe the instructions given in this manual, no claims under the warranty agreement can be submitted to Insinger Machine Company.

Safety Instructions

Make sure that you have read and understood the operating instructions before you start to use the dishwasher. The Insinger customer service department can tell you how to operate the washer and how it works.

Definitions

Throughout this guide you will find the following terms: WARNING, CAUTION, & NOTE.

WARNING indicates potential physical danger.
CAUTION indicates potential equipment damage.
NOTE indicates helpful operating hints or tips.

You will visually be able to identify each as shown below:

WARNING:
Indicates potential physical danger.

NOTE:
Indicates helpful operating hints or tips.

CAUTION:

Indicates potential equipment damage.

INSINGER MACHINE COMPANY LIMITED WARRANTY

Insinger Machine Company, Inc. (Insinger) hereby warrants to the original retail purchaser of this Insinger Machine Company, Inc. product, that if it is assembled and operated in accordance with the printed instructions accompanying it, then for a period of either 15 months from the date of shipment from Insinger or 1 year (12 months) from the date of installation or start-up that said Insinger product shall be free from defects in material and workmanship. Whichever one of the two aforestated limited warranty time periods is the shortest shall be the applicable limited warranty coverage time period.

Insinger may require reasonable proof of your date of purchase; therefore, you should retain your copy of invoice or shipping document.

This limited warranty shall be limited to the repair or replacement of parts which prove defective under normal use and service and which on examination shall indicate, to Insinger's satisfaction, they are defective. Any part that is claimed to be defective and covered by this limited warranty must be returned to Insinger, this may be done through an Authorized Service Agency. Furnish serial number of machine with shipment and send to:

Insinger Machine Company
6245 State Road
Philadelphia, PA 19135-2996

If Insinger's inspection confirms the defect and the claim, Insinger will repair or replace such part without charge and return it to you freight or postage prepaid.

This limited warranty does not cover any failure or accident, abuse, misuse, alteration, misapplication, improper installation, fire, flood, acts of God or improper maintenance or service, or failure to perform normal and routine maintenance as set out in the instruction booklet (operating instructions) or for improper operation or failure to follow normal operating instructions (as set out in the instruction booklet). Insinger is not responsible nor liable for any conditions of erosion or corrosion caused by corrosive detergents, acids, lye or other chemicals used in the washing and or cleaning process.

Service must be done by either Insinger Appointed Service Agencies or agencies receiving prior authorization from Insinger.

All warranty work must be done during normal working hours, unless purchaser receives prior authorization from Insinger.

There are no other express warrants except as set forth herein and any applicable implied warranties of merchantability and fitness are limited in duration to the period of coverage of this express written limited warranty. This limited warranty supersedes all other express warranties, implied warranties of merchant-ability and fitness or limited warranties as of this date, January 1, 1998. Some states do not allow limitation on how long an implied warranty lasts so this limitation may not apply to you.

Insinger is not liable for any special, indirect or consequential damages. Some states do not allow the exclusion or limitation of incidental or consequential damages, so this limitation nor exclusion may not apply to you.

Insinger does not authorize any person or company to assume for it any other obligation or liability in connection with the sale, installation, use, removal, return or replacement of its equipment: and no such representations are binding on Insinger.

INSINGER MACHINE COMPANY LIMITED WARRANTY
COMMERCIAL MARINE USE

Insinger Machine Company, Inc. (Insinger) hereby warrants to the original retail purchaser of this Insinger Machine Company, Inc. product, that if it is assembled and operated in accordance with the printed instructions accompanying it (installation manual), then for a period of 15 months from the date of installation on board the vessel, that said Insinger product shall be free from defects in material and workmanship.

Insinger may require reasonable proof of your date of equipment install, therefore, you should retain your copy of invoice or shipping document.

This limited warranty shall be limited to the replacement of parts which prove defective under normal use and service and which on examination shall indicate, to Insinger's satisfaction, they are defective. Any part that is claimed to be defective and covered by this limited warranty must be returned to Insinger. Furnish serial number of machine with shipment and send to:

Insinger Machine Company, Inc.
6245 State Road
Philadelphia, PA 19135-2996

If Insinger's inspection confirms the defect and the claim, Insinger will repair or replace such part without charge and return it to you freight or postage prepaid. If part damages are not covered, Insinger will contact the customer and advise.

If a factory trained authorized technician is required to repair or replace defective parts or material during the 18 month warranty period, the cruise line will be responsible for the payment of travel expense and a minimum of four hours labor.

Labor will be billed to the customer at a reduced rate of $40.00 per hour. If sailing with a vessel is required, then an eight hour per day minimum will apply.

This limited warranty does not cover accident, abuse, misuse, alteration, misapplication, improper installation, fire, flood, or improper maintenance or service, or failure to perform normal and routine maintenance as set out in the instruction booklet (operating instructions) or for improper operation or failure to follow normal operating instructions (as set out in the instruction booklet).

Insinger is not responsible nor liable for any conditions of erosion or corrosion caused by corrosive detergents, acids, lye or other chemicals used in the washing, caring and or cleaning process.

Warranty service must be done by either Insinger Appointed Service Agencies or agencies, customers galley engineers receiving prior authorization from Insinger.

There are no other express warrants except as set forth herein and any applicable implied warranties of merchantability and fitness are limited in duration to the period of coverage of this express written limited warranty. This limited warranty supersedes all other express warranties, implied warranties of merchantability and fitness or limited warranties as the above date.

Insinger does not authorize any person or company locally or overseas to assume for it any other obligation or liability in connection with the sale, installation, use, removal, return or replacement of its equipment; and no such representations are binding on Insinger.

INSTALLATION AND CONNECTION

WARNING:
Installation and connection of the washer to the customer's water inlet, waste water drainage and electric connections are to be carried out in accordance with national and local criteria by qualified engineers.

Check for Completeness:

After unpacking the machine, first check the delivery against the packing slip to ensure that it is complete, and inspect for damage that may have occurred during transportation. Immediately report any damage to the carrier, the insurance company and the manufacturer.

Setting Up and Alignment:

When setting up the machine, remember that the machine gives off steam during operation (when you open the door). Protect adjacent wooden furniture to prevent it absorbing moisture and swelling.

CAUTION:

Protect the washer against frost. Systems that carry water can be damaged if they freeze.

The machine must be completely level prior to installation. Adjust the machine's feet to compensate for any unevenness of the floor.

CAUTION:

Note all the information on the enclosed connection diagram. For the machine to work correctly, the required water pressure and flow rate must be guaranteed at all time.

Connection to the Water Supply:

- Use a ball valve for the water supply and drain near the washer and in an easily accessible position. It should not be located behind the washer.
- Use the hose and dirt catcher strainer (PART NO. 80002153) provided with the washer to connect it to the water supply. The filter must be installed.
- The washer is equipped with a drain pump. The maximum drain pump lift above floor is 24".

Connection to the Power Supply:

Before using the washer, check that all electrical protection systems are working correctly.
Attention: The machine should not be regarded as isolated from the power supply unless switched off at the customer's main switch.

WARNING:
Do not connect a 208V machine to 240V service or visa versa. Connect machine to labelled power.

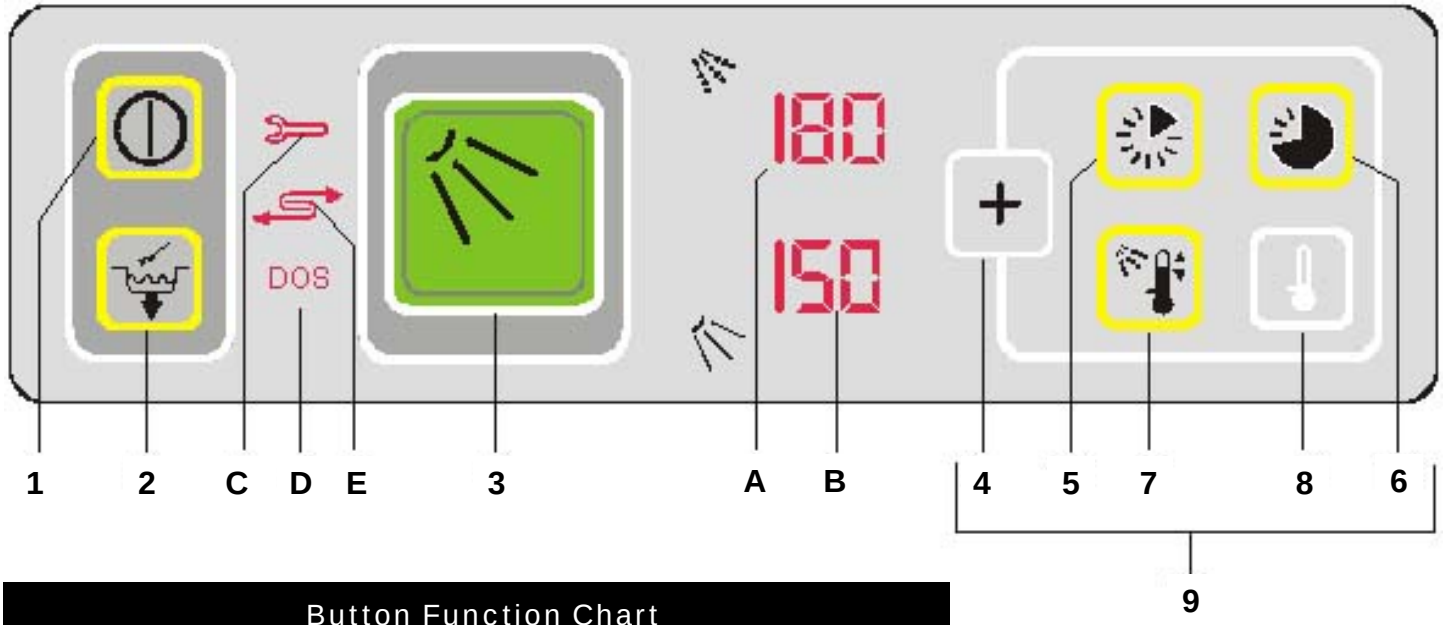
- The total amp load of the washer depends on the electrical characteristics; 208 Volt single phase 60 Hz equals a load of 27.4 fla, 240 Volt single phase 60 Hz equals a load of 25 fla. (This data is also shown on the machine's rating plate.)
- The electrical connection of the washer is to be fused by the customer with time-lag fuses or circuit breaker according to wattage (see the machine rating plate). No other appliances may be fused with the washer.
- Install according to regulations, an isolator or a control switch and a residual current circuit-breaker; the 208 Volt unit requires a 35 amp circuit breaker and the 240 volt unit requires a 30 amp circuit breaker in the electric supply. These switches must switch off all poles and have at least 3 mm contact distance. The place of installation must be near the washer and easily accessible.
- Connect the power cord to the customers power system. Note voltage of machine (either 208 volt or 240 volt) and connect power cord to the appropriate supply. (The power cord can be wired directly into the customers power supply or a plug may be added to the end of the cord. The ground wire is green, neutral is white and live is black.) make sure the unit is properly grounded.
- The power cord comes attached from the factory, if replacement is required note: the ground wire (PE) is yellow-green, the neutral conductor (N) is blue and the live wires (L1, L2, L3) are black or brown.

Final Tasks:

The washer must be connected to all services (electricity supply and to the fresh water and waste water systems), prior to testing the machine & installation.

OPERATING INSTRUCTIONS

Operating Panel
The operating panel is situated in the upper part of the machine.



Button Function Chart	
1	On/Off switch
2	Tank drainage/self cleaning
C	Indicator lamp for fault
D	Indicator lamp for lack of detergent or rinse aid
E	Indicator lamp for salt refill on softener supplied units
3	Control button
A	Temperature display – Final rinse/booster or parameter index
B	Temperature display – Wash tank or parameter valve
4	Function button – activates the special programs (10-13)
5	Parameter index down
7	Parameter valve down
8	Parameter valve increase
6	Parameter index increase
9	Button area for special programs

HOW THE DISHWASHER WORKS

When the machine is switched on, the booster and wash tank fill and are heated to operating temperature. The program button (6) is lit red during heating. The booster preheats the wash water before pumping to the wash tank. This preheat/pumping sequence takes about 6-8 cycles (about 30-45 minutes) before filling & heating the wash tank.

- Switch on machine by pressing button 1.
- The tank is filled in stages by way of the boiler:
- The boiler is first completely filled until the electronic level control switches off.
- The boiler heats up.
- The tank is filled by way of the rinse pump for a certain period of time.
- When the boiler is filled again heated up, the tank is again filled for a certain period of time by way of the rinse pump.
- This continues until the target values (level, temperatures) for boiler and tank are reached.
- During filling, button 3 glows red and the temperatures of the tank (in Display B) and the boiler (in Display A) are shown.
- When the target values (level, temperatures) have been reached, the temperature display goes out and button 3 is lit green.

As soon as the target temperatures are reached, (wash water approximately 150°F; final rinse water approximately 180° F) the washer is ready for operation. The program button (6) then lights up green.

The machine is operated using fully-automatic programs. These consist of three steps: washing, draining and rinsing. The program button (6) is lit blue during the wash and rinse cycle and green when it is finished & ready for another load. It is lit red when it is

Washing: The wash pump circulates the wash water from the tank onto the dishes and ware via the wash arms and jets. As the wash water circulates, it constantly passes through a filter system and the patented Mediamat Cyclo (removing foreign particles from the water). Detergent is added by means of an integral dosing pump for liquid detergent. It is dosed from the storage tank behind the front panel.

Draining: After washing, there is a brief pause to allow the wash water to drain off the ware and to reset the water level for the next run.

Rinsing: In the final step of the program, the cleaned dishes are rinsed with fresh hot water to remove any detergent residue and to heat up the dishes for optimum drying outside the machine. The rinse water also replaces the wash water. An integral dosing pump doses the rinse aid from a storage tank behind the front panel.

WARNING:
Do not open the door while the program is running. There is a risk of hot water spraying out of the machine. (The unit is equipped with a door safety switch, located behind the door.)

CAUTION:

Do not place anything on the open door.

WASH PROGRAMS

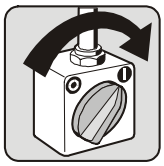
The dishwasher can operate in a normal time cycle or an extended time cycle (additional 80 seconds added to the wash cycle.) The individual programs are selected by means of the control panel.

Program (button)	Description
Normal Program (3)	For normal soiling. Medium drying time.
Extended Program (4)	For heavy soiling. Long drying time.
Tank Drainage / Chamber Rinse (2)	Rinsing of the inside wash chamber: Circulation of the wash water inside the wash chamber. Pumping out the wash water. Flushing out the wash chamber with fresh hot water. Pumping out the used fresh water. The washer switches off automatically when the program is finished. **This is not a substitution for deliming**.

Before Washing

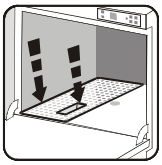
Verify water & electricity are available for the machine.

Turn ball valve to open position.



Switch on the main switch.

Check the Filter System:



Open the door.

Check that the scrap screen is inserted correctly.

Turn on Machine:

Close the door.

Press On/Off switch (1), heating up phase begins.

The program button (3) is lit **red**: the booster and tank are filling and heating up.

Adding Rinse Aid and Detergent:

CAUTION:

Only use detergent and rinse aid which are suitable for commercial washers, a non-foaming industrial alkaline detergent.

Do not use any soap intended for a residential dishwasher. This leads to large amounts of foam building up in the washer and will void your manufacturers warranty.

CAUTION:

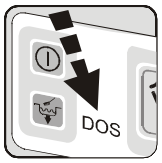
Detergents for commercial dishwashers cause corrosion. Always follow the instructions on the packaging and drums.

CAUTION:

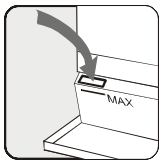
Do not mix different detergent products, this could cause the dosing pump to break down due to crystallization.

Changing the Detergent Type.

If changing to a different detergent type (even one by the same manufacturer), you must rinse the suction and pressure hoses with fresh water before connecting the new detergent container. Otherwise, the mixing of different types of detergent will cause crystallization, which may result in a breakdown of the dosing pump.



Check the amount of detergent and rinse aid when the symbol DOS (D) lights up on the operating panel.



To do this pull the lower panel forwards.

NOTE:
The storage tanks are identified with words "*detergent*" and "*rinse aid*". When filling, make sure that no detergent goes into the rinse aid container or vice versa.

The program button (3) is lit **green** when the tank and booster have reached their target temperatures**.**

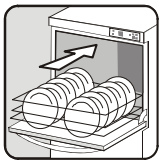
The machine is now ready for operation.

WASHING

Note:The first run of each day OR after the machine is drained will be delayed due to the manner in which the GS 302 is filled.

The tank is filled in stages through the pressureless booster. The booster fills and heats the water. One the water reached approximately 150 °F, the water is transferred into the wash tank by way of the rinse pump. This process continues until the wash tank is filled and heated to target values.

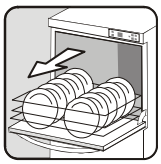
Washing with the Normal Program



Push the full wash rack into the machine and close the door.

Press program button (3). The program button is lit **blue** while the cycle is running.

The program button lights up **green** when the cycle is complete.

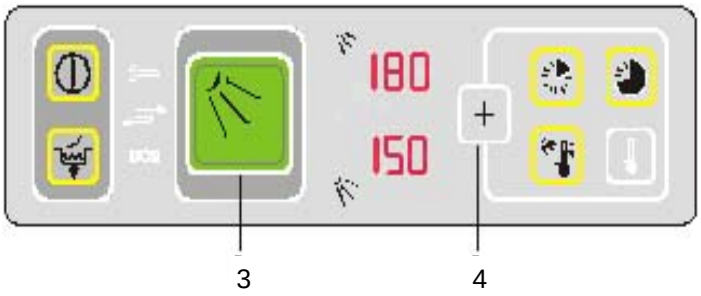


Open the door and remove the wash rack. The intrinsic heat of the wares and the effect of the rinse aid added to the rinsing water combine to quickly dry the wares. Do not dry recently cleaned dishes with a towel to avoid spreading bacteria and germs.

Close the door.

Washing with the Extended Program

Press the function button to activate the area with the extended program. Press the button again to deactivate this area.

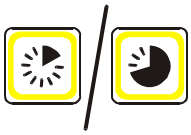


The extended program can now be used in addition to the normal program. This means that once the extended program has been selected, it will always be activated by pressing button 3. To clear the extended program press button 4 again. If switched off the machine will revert to the normal program.

WASHING (CONTINUED)

Extensive Program

Use: Depending on the level of soiling on the wash items, select the button indicating extended wash time.

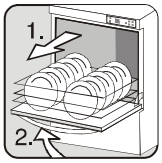


Press the button to select the extended wash program.

NOTE: The short cycle is not available with this machine.

Press the button to start the program.

Draining the Tank; Rinsing the Chamber



Remove the rack.
Close the door.

Hold down the function button for three seconds to start the rinsing program. (See section 9 of the Operating Manual for deliming instructions.) The function button flashes.

The wash water is then circulated inside the wash chamber while it is pumped out. The machine interior is finally flushed out with hot fresh water. The washer switches off automatically when the rinsing program is finished. The operating panel is no longer lit.

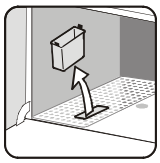
GENERAL MAINTENANCE

The washer should be regularly cleaned to ensure that it remains reliable and in good working order for many years to come.

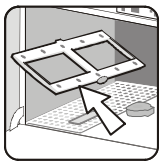
CAUTION:

Do not spray the outside of the washer with a high pressure or steam jet cleaner.

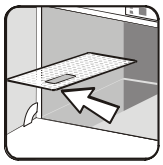
Every Day After Washing



Remove the filter cartridge, clean it under running water and reinsert.



If the flat filter is very dirty remove the bottom wash trays and rinse them with water.

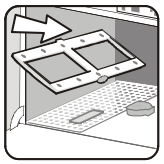


Remove the flat filter with the filter cartridge and clean it under running water.

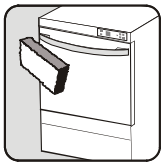
Use a brush to remove any deposits inside the machine.

During cleaning, make sure that no rusting foreign bodies remain inside the washer. This can cause the interior to rust. The foreign bodies may come from non-stainless steel items washed, cleaning aids, damaged wire racks or from supply lines which have not been rust-proofed.

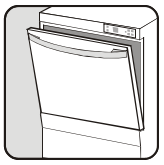
Reinsert the flat filter with the filter cartridge.



Reinsert the bottom wash trays.



Clean the outer walls of the washer with cleaning products for high grade stainless steel.



Open the door slightly using the to the vent position. This will allow the interior to dry more easily, which is important for long-lasting protection against corrosion – even for stainless steel.

DELIMING PROCEDURES FOR THE GS 302

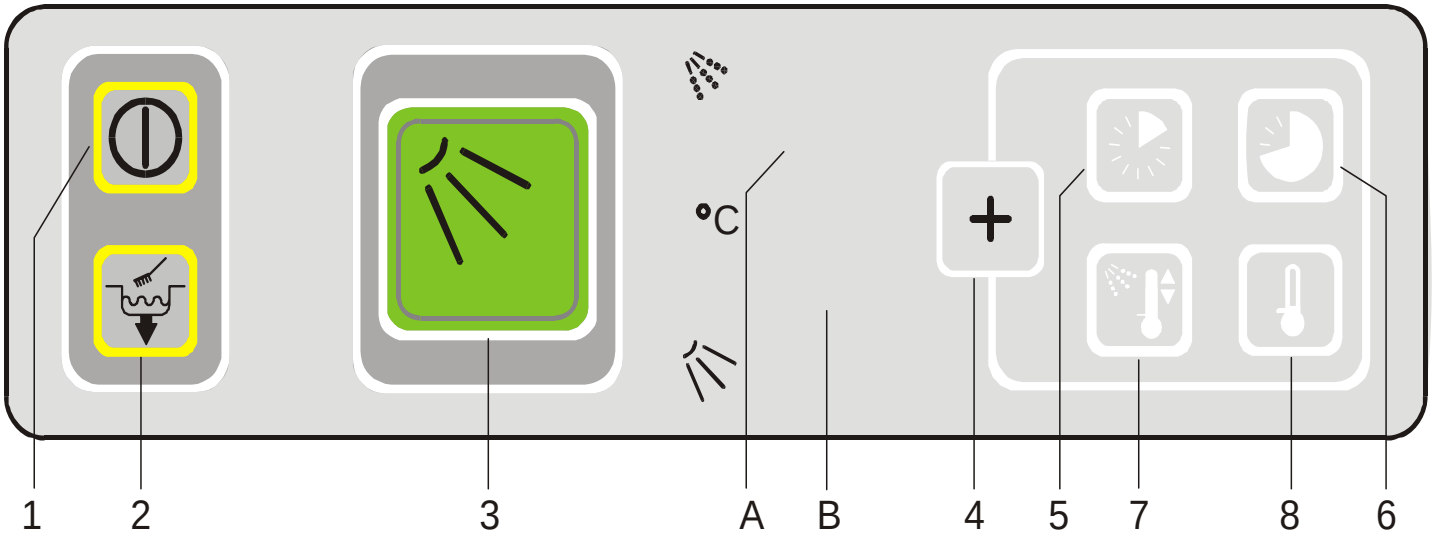
WARNING:
The GS 302 must be kept free of lime for proper operation. Lime will interfere with normal function.

Machines that are operated in hard water areas and do not have an integral water softener or are not connected to an external water treatment system must be de-limed from time to time. There are de-liming agents specially designed for commercial washers available for this purpose, please consult your detergent supplier.

CAUTION:

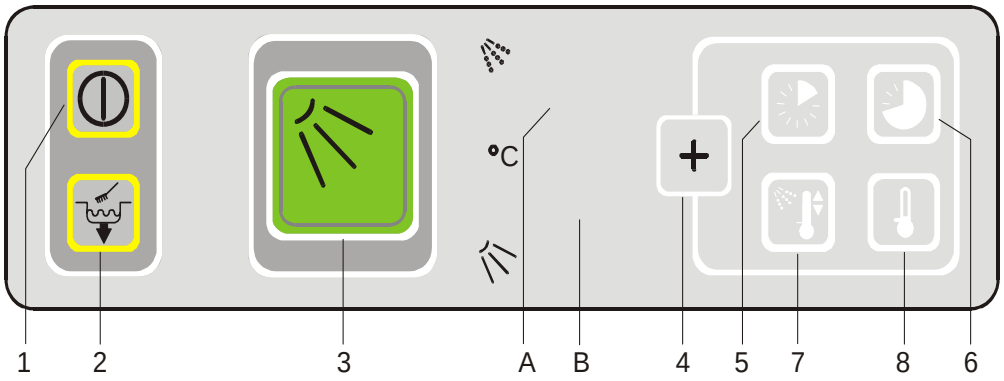
De-liming agents for commercial dishwashers cause corrosion. Always follow the instructions for use and safety instructions on the packaging and drums.

DELIMING PROCEDURES FOR THE GS 302 (CONTINUED)



1. Note and record detergent dose setting.Turn off unit (Button 1) Press and hold Buttons 2 & 3 simultaneously, while holding these buttons press button 1. P11 in visible display A. Note value in display B.
2. Press Button 7 (to decrease detergent dosage) until display B display reads “10”.
3. Press button 4 to store value.
4. Drain Machine. Press and hold button 2 for three seconds (until you hear the wash pump start.) The machine will rinse then drain. When complete the operating panel will no longer be lit.
6. Turn on machine. Press on/off button.
7. Refill machine. (Press button 3.)
8. Open door add deliming agent directly into the tank.
8. Run extended program. (Press button 4 then Press button 6 (extended cycle.) Press button 3 to run cycle.
9. After cycle completes, open door and inspect. If additional deliming is required repeat steps 7 & 8.
10. When deliming procedure is complete, reset the detergent dosage back to original.Turn off unit (Button 1) Press and hold Buttons 2 & 3 simultaneously, while holding these buttons press button 1. (P11 in display A) Press Button 8 (to increase detergent dosage) until B display reads same as original. Press 4 to store drain machine.
11. Drain Machine. Press and hold button 2 for three seconds (until you hear the wash pump start.) The machine will rinse then drain. When complete the operating panel will no longer be lit.
12. Machine is ready for use.

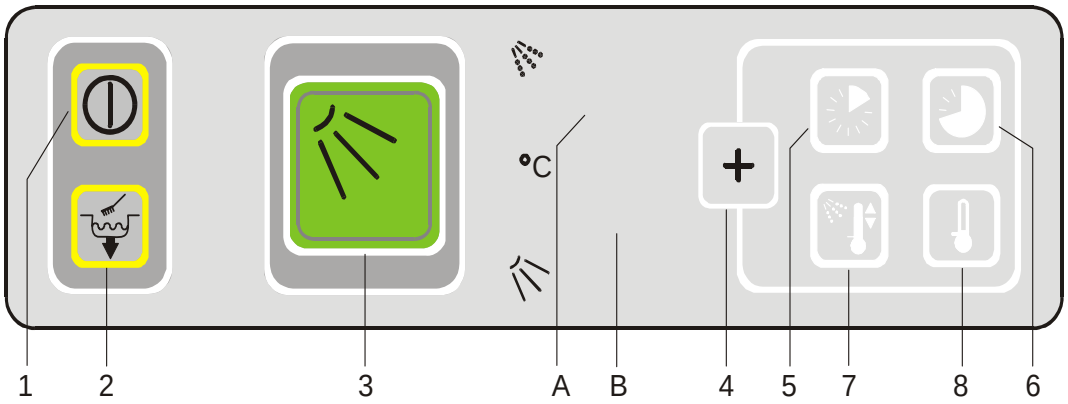
Combination of Buttons



Button	Function	Remark
1. Set Up Parameter Mode		
1	Switch off machine	
ON	Set service switch to ON	
1	Switch on machine	Display A: P00=parameter set P01-P050= parameters
5	Parameter backwards	
6	Parameter forwards	
7	Parameter value backwards	Display B: Parameter value
8	Parameter value forwards	
4	Store parameter value	
2. Set up test mode		
1	Switch off machine	
ON	Set service switch to ON	
1	Switch on machine	
3	Keep pressed for 3 sec.	Display A: —-
5	Actuator backwards	
6	Actuator forward	To select Out-put (A)/Input (E)
4	Switch on/off input or output	

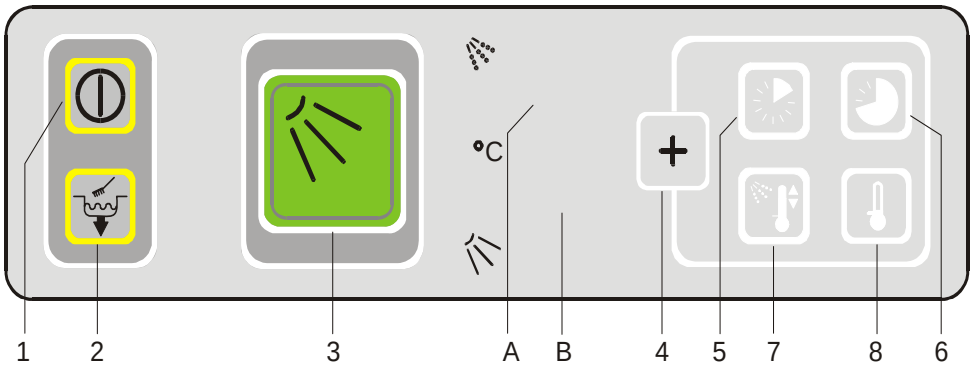
Button	Function	Remark
3. Quit parameter mode or test mode		
1	Switch off machine	
OFF	Set service switch to OFF	
1	Switch on machine	
4. LED—Test		
1	Switch off machine	
	Switch off customer's main switch	
1+2	Keep pressed	
	Switch on customer's main switch	Each LED can be tested by pressing
1+2	Release buttons	
	Quit by switching off main switch	
5. Display operating data		
1	Switch off machine	
4+8	Keep pressed	
1	Switch on machine	
5	Operating hours	Display: value x hours
6	Water consumption	Display: value x 10 litres
7	Wash cycles	Display: value x cycles

Combination of Buttons



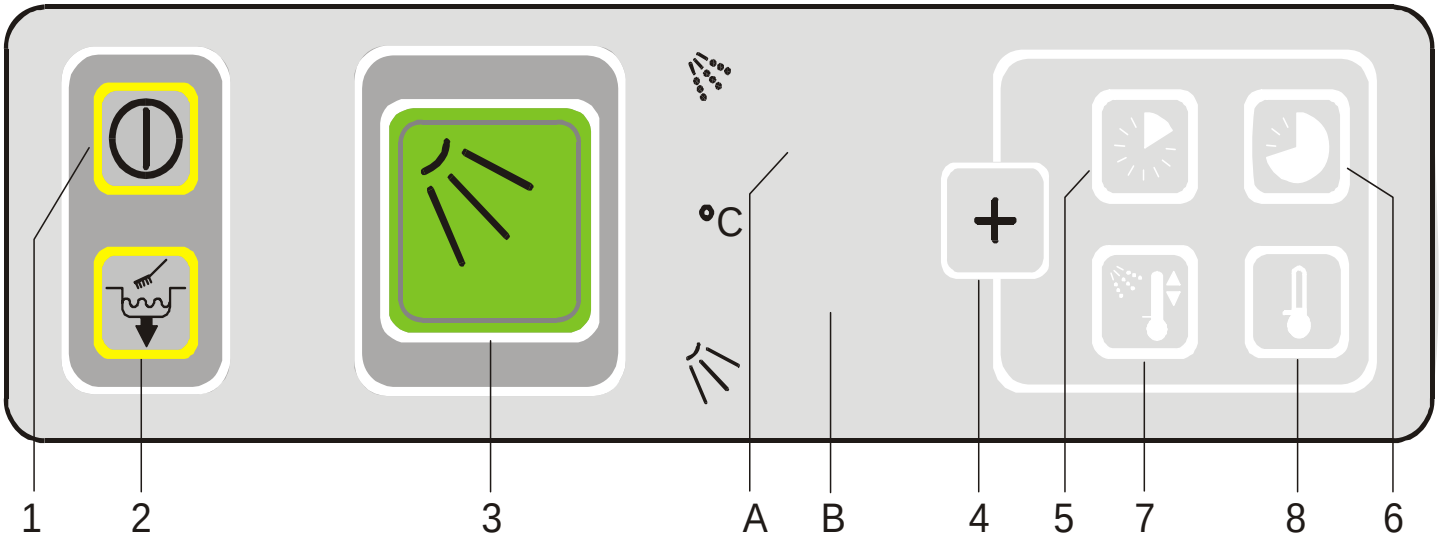
Button	Function	Remark
6. Prime the detergent unit, set concentration		**Direct to P11**
1	Switch off machine	
2+3	Keep pressed	
1	Switch on machine	P11 in display A
2	Keep pressed to ventilate unit	
7	Decrease dosage of deter-gent	Value x 0,1 ml/ L
8	Increase dosage of deter-gent	
4	To store altered value	Button 3 glows red
7. Prime the rinse aid unit, set concentration		**Direct to P10**
1	Switch off machine	
2+3	Keep pressed	
1	Switch on machine	
3	Keep pressed	
2	Press twice	P10 in display A
2	Keep pressed to ventilate unit	
7	Decrease dosage of rinse aid	Value x 0,1 ml/ L
8	Increase dosage of rinse aid	
7	To store altered value	Button 3 glows red

Parameter Set



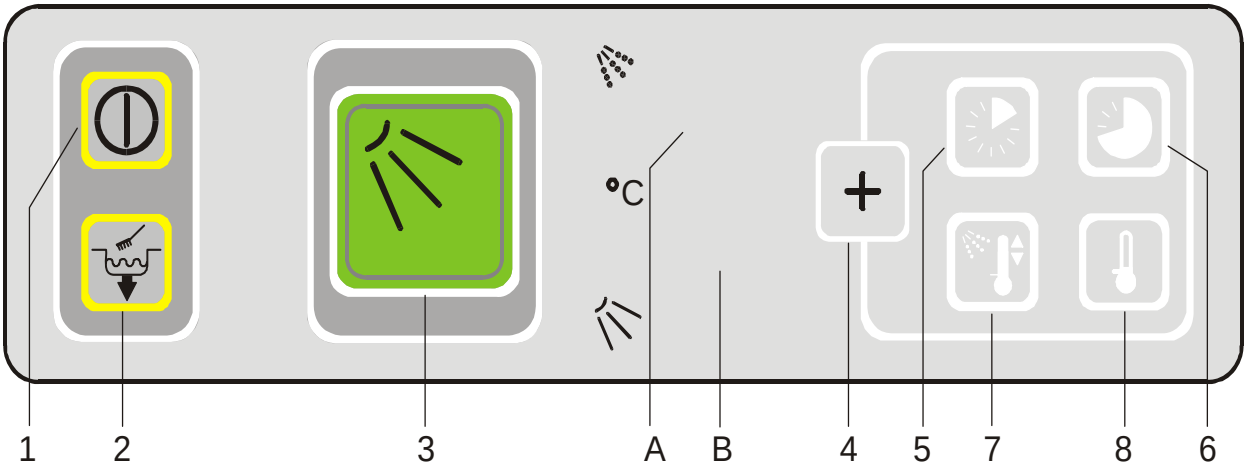
SET	Specification	Factory Setting	Multiplicator
P00	Parameter set	121 Standard 120 w/water softener	
P01	Tank target temperature Tank filling temperature: Min. temperature 169°F (P01+15) Max. temperature 185°F (P01+31)	154	°F
P02	Boiler target temp. 1	182	°F
P03	Boiler target temp. 2 (149) Option	149	°F
P06	Time of wash pump, normal program (135sec)	27	5 sec.
P07	Time of wash pump, intensive program (215sec)	43	5 sec.
P08	Rinse time (11sec) Attention: P09 must be modified accordingly if P08 is changed!	11	sec.
P09	Rinse quantity is required for the calculation of the detergent and rinse aid dosage	28	0,1 litre
P10	Rinse aid concentration See “Combination of Buttons”	30	0,01 ml/L
P11	Detergent concentration See “Combination of Buttons”	30	0,1 ml/L
P13	The first programe run take place: Value 1: after the tank temperature was attained Value 0: Before the tank target temperature has attained.	0	
P14	Continuous temperature display (1:yes/0:no)	1	
P17	Quantity restrictor (pressue boiler: 15L/pressureless boiler: 5L)	50	0,1 litre
P18	0: No function 1: Countdown device installed	0	
P21	Reset countdown device (set value 1 to reactivate) See “Combination of Buttons”	0	
P22	Quantity of water for countdown device	20	1000L

Parameter Set



SET	Specification	Factory Setting	Multiplicator
P24	Simple door start (0:no/1:yes)	0	
P25	Error management (1: activated/0: not activated, however the safety criterias are activated)	1	
P26	Automatic tank draining and refilling 2: yes if tank temp. is below 118° F 0: not activated	2	
P27	Type of dosing unit for detergent 3: MP 28 5: “Fill/Water” terminal strip = Signal of water inlet valve 4: “Fill/Water” terminal strip = Signal while first tank filling See “Combination of Buttons”	3	
P32	With P32-37 you can control the Multifunction relay. To program the relay see Service Manual 2	See technical doc. 2 to install	
P38	EZEO (only with energy optimization plant on site) 0: inactive 1: tank heating is switched off 2: boiler heating is switched off 3: boiler and tank heating is switched off 4: machine in stand by mode (option)	0	
P39	Type of dosing unit for rinse aid 2: MP 28 1: ELT 10	2	
P44	Pressureless boiler is filled while final rinse (0: no/1: yes)	0	

Inputs and Outputs



Test Mode (table for output/input)			
Display A	Specification	Safety Criteria	Display B
101	Tank heating 1	Min. tank level present Temp. below 182°F	Tank temp. in °F
A02	Boiler heating	Min. boiler level present Temp. below 182°F	Boiler temp. in °F
A03	Soft starter for wash pump	Door closed	Tank level in mm
A08	Relay soft start		0
A09	Rinse pump M3	Door closed	Tank level in mm
A10	Dos. Rinse Aid	Door closed	1 or 0
A11	Dos. Detergent	Door closed	1 or 0
A12	Drain pump		Tank level in mm
A13	Pressureless boiler valve Y3		1 or 0
Input			
E01	Tank temperature		
E02	Boiler temperature		
E03	Tank level		
E11	Lack of detergent or rinse aid. Signal: DOS		1 or 0
E12	Filling level of pressureless boiler		
E14	EZEO		1 or 0
E16	Door		1 (closed) 0 (open)

TROUBLESHOOTING

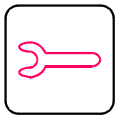
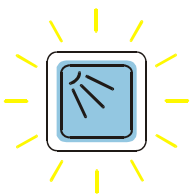
Faults where it is *not necessary* to call Insinger.

You can rectify minor faults yourself following the steps described in the table below. If you are unable to rectify the fault, contact Insinger service (1-800-344-4802.)

Do not open any panels or expose any parts of the machine if tools are necessary to do so. Risk of electric shock.

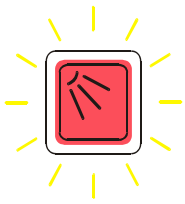
Work on the electrical equipment should only be performed by service personnel. First disconnect the washer from the main power switch. Do not switch the washer on again until the cause of the fault has been identified.

WARNING:
Turn off the main switch on the dishwasher so it is isolated from the power supply.

Display	Cause	Remedy
The Washer Cannot Be Switched On	Main switch on the machine is not switched on	Switch on the customer's main switch
	Customer's fuses blown	Replace the customer's fuses
Wash Program Does Not Start	Door not fully closed	Close the door
	Machine not ready for operation	Switch on at the customer's main switch, open the water stop valve and switch on the machine
Dishes Are Not Clean	Detergent or rinse aid storage tank is empty	Top off the detergent or rinse storage tank
	Filter cartridge and/or scrap screen is dirty	Clean the filter cartridge and scrap screen
	Wash jets in the wash arms blocked	Clean wash jets
	Lack of detergent or rinse additive	Re-fill detergent or rinse additive
Display Shows 	Water stop valve closed Malfunction	Turn off the dishwasher (Press the on-off switch). Then the display should show **Err** and a fault code. Open the water stop valve and turn the machine on again. If the fault message reappears, note the fault code and contact Insinger Service.
Button is Flashing Blue 	If the dishes have not been sufficiently pre-rinsed, so much dirt may have accumulated on the scrap screen and the cartridge filter that the wash program's operation is interrupted. The wash pump turns itself off and the program button flashes blue.	Turn off the machine, the program button continues to flash. Remove the screens, clean and replace. After 2 minutes the flashing will stop. Turn the machine on again and continue to use. In order to avoid further problems please ensure better pre-rinsing.

TROUBLESHOOTING (CONTINUED)

Faults where it is *necessary* to call Insinger Service.

Display	Possible Cause
	**Flashing light:** Temperature in booster or tank is greater than 203°F.
	Caution: Surface is very hot. The fault (3) symbol appears together with the fault code Err 2 or Err 3. Switch off main switch. Notify the Insinger service team immediately.

When the machine can no longer be used because of internal faults, the machine turns itself off automatically and displays an error code. See chart below.

Display	Possible Cause	Remedy
Machine Shuts Down and Displays Err 1	Internal fault.	Inform Insinger Service.
Machine Shuts Down and Displays Err 6	Internal fault or water flow blocked.	Inform Insinger Service and/or remove the blockage.
Machine Shuts Down and No Longer Displays Anything	Internal fault.	Inform Insinger Service.

Error Management

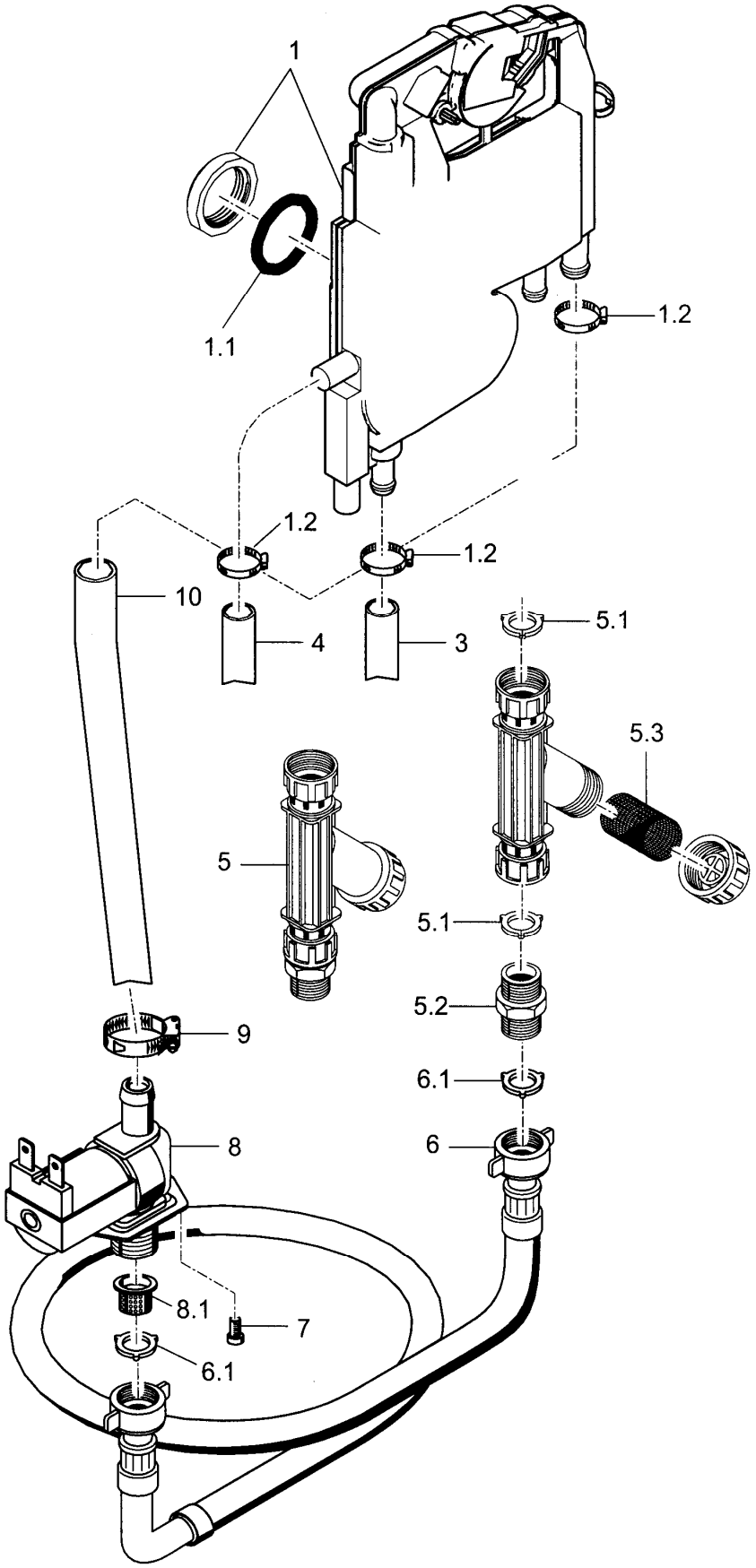
Error Code	Fault Description	Machine/Fault Reaction	Cause	Panel Input	Acuator	Actuator Display
1	Wash tank level sensor	Shuts down	Short circuit Broken cable No connection to WPS board	E3		
2	Wash tank temp sensor	Tank heater shuts down Wash button flashes red	Short circuit Broken cable No connection to WPS board Tank temp exceeds 203F	E1	A01	Tank Temp
3	Booster temp sensor	Booster heater shuts down Wash button flashes red	Short circuit Broken cable No connection to WPS board Tank temp exceeds 203F	E2		
4	Wash pump	No change in tank water level after 30 secs of wash pump running	Blocked or defective	M1		
	Level Sensor		Blocked or no connection to WPS			
6	Drain pump	No drop in tank water level 8 minutes after drain cycle is initiated—machine shuts off	Blocked or defective Improper connection Blocked	M2	A12	Shows tank level in mm, level will drop if pump is operating
	Level sensor		Blocked	E3		

Error Management (CONTINUED)

Error Code	Fault Description	Machine/Fault Reaction	Cause	Panel Input	Acuator	Actuator Display
7	Booster heater	No temp increase within 5 minutes of turning on machine	Defective Blown Fuse Improper connection Defective contactor	K2		
8	Wash tank heater	No temp increase within 30 minutes of turning on	Blown Fuse Improper connection Defective contactor	K3		
9	Machine losing water	Water level drop greater than 3/4”	Leak			
12	Connecting cable	Machine turns off	Cable breakage Improper connection			
13	Fill time fault-wash tank	Tank fill not complete within 60 minutes	Incoming water line blocked Defective solenoid Defective rinse pump	Y3 M3	A13	1 or 0 (hear open and allow water to enter)

Error Management (CONTINUED)

Error Code	Fault Description	Machine/Fault Reaction	Cause	Panel Input	Acuator	Actuator Display
15	Fill time fault-booster	No water in booster detected within 6 minutes	Incoming water line blocked Defective solenoid Defective level sensor booster	Y3 E12		
17	Final rinse temp sensor	N/A	Short circuit Cable Breakage	E4		
18	Parameter 00 not set @ 121		Changed WPS board			
19	Water level inc of 10mm/min detected w/closed solenoid valve	Water pumped out by drain pump	Defective solenoid	Y3		
21	Tank water level exceeds max after machine is turned off	Drain pump activates				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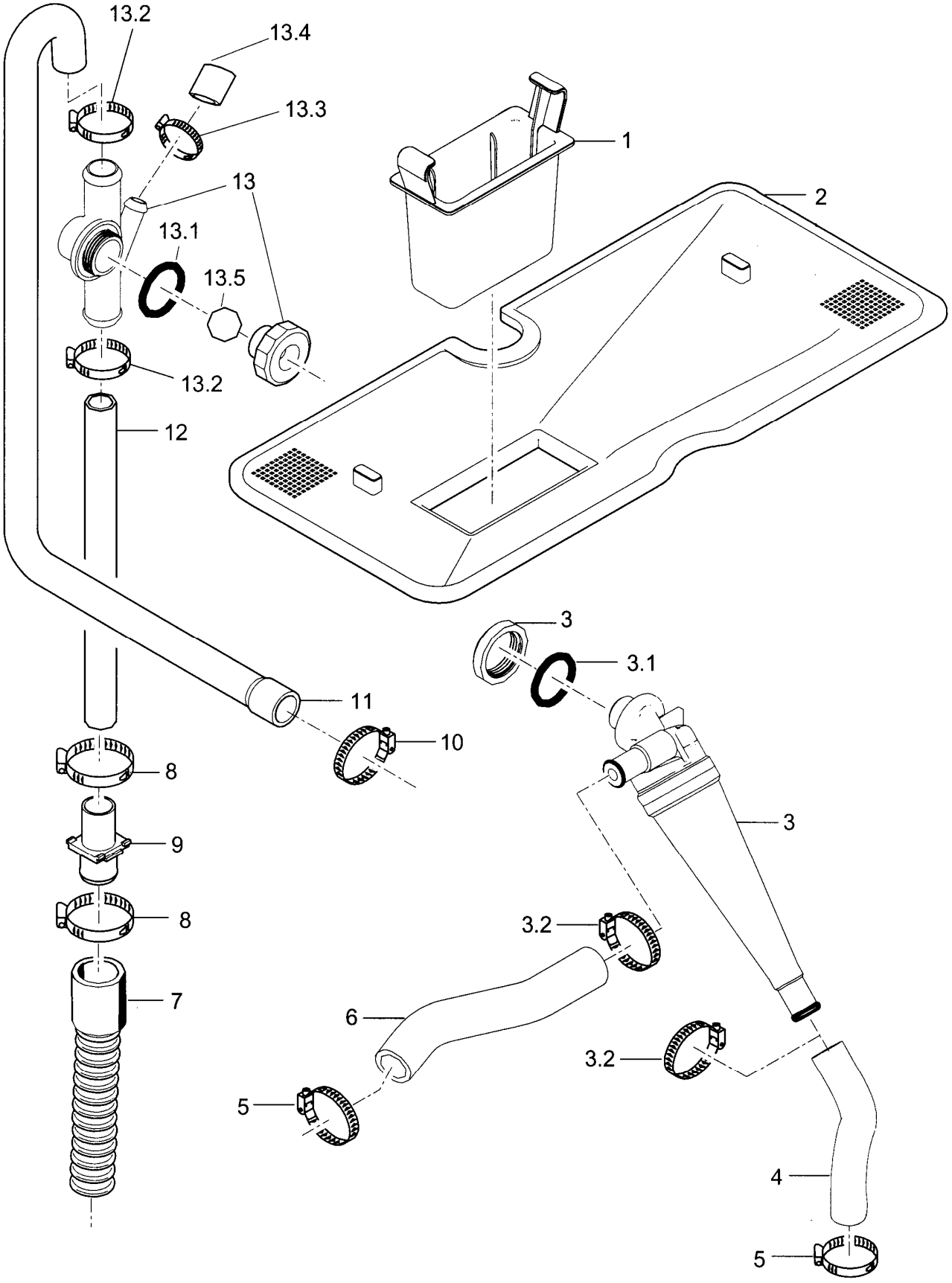
Water Inlet

Item	Description	Parts No.	Pc.	Notes
1	WSE with impeller counter kit	**GS6000312**		
1.1	O-ring; 24 x 3	**GS2707066**		
1.2	Hose clip; D14-24 x 9	**GS2802108**	4	
3	Shaped hose; DN10 x DN12; 549	**GS60003154**		
4	Shaped hose; DN12, 5 x 3, 5; 780	**GS60003163**		
5	Dirt catcher coupling	**GS80002153**		
5.1	Gasket; D16 x D24 x 3.0	**GS80002241**	3	
5.2	Double nipple; G 3/4” x 40; SW30	**GS80002167**		
5.3	Strainer cpl.; D27 x 67	**GS80002728**		
6	Hose WRC tested; DN13 x 3, 5; 2500	**GS4002005**		
6.1	Gasket; D16 x D24 x 3.0	**GS80002241**	2	
7	Pan head screw; M4 x 8	**GS2010309**	2	
8	Solenoid valve flow restrictor 5l; 230-240V 50/60HZ RAST5	**GS3106215**	1	
8	Solenoid valve flow restrictor 5l; 200-208V 50/60HZ RAST5	**GS3106213**		
8.1	Solenoid valve filter	**GS3106186**		
9	Hose clip; D12-22 x 9	**GS2802105**		
10	Reinforced hose WRC; DN13 x 3,5	**GS4002029**		5900 mm; meter item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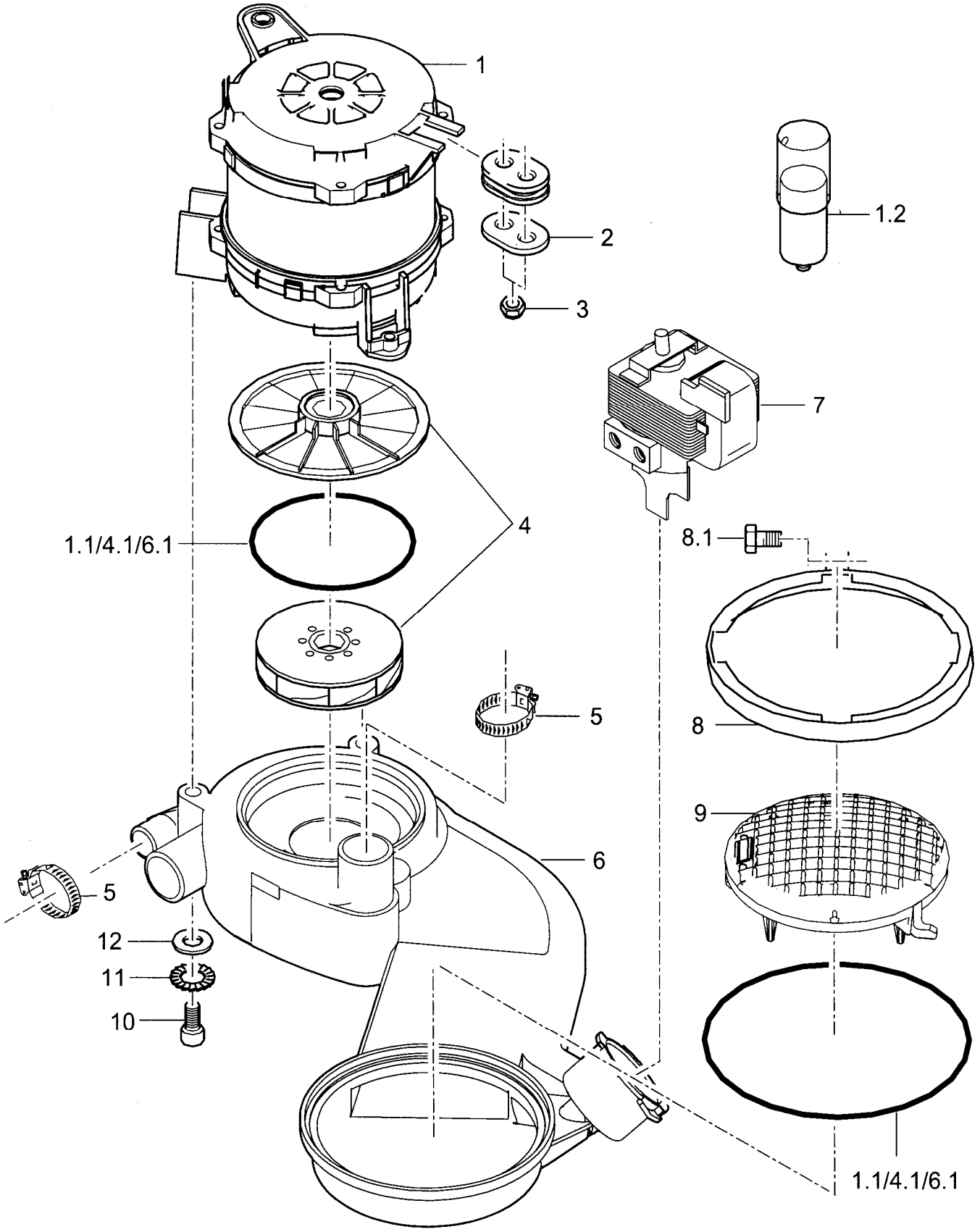
Water Drainage, Mediamat Cyclo

Item	Description	Parts No.	Pc.	Notes
1	Filter cartridge (scrap screen basket)	**GS60003039**		
2	Flat filter; 32, 5 x 238 x 547 scrap screen	**GS60003414**		
3	Mediamat Cyclo kit	**GS60003513**		
3.1	O-ring; 17 x 3	**GS2707068**		
3.2	Hose clip; D12 –22 x 9	**GS2802105**	2	
4	Shaped hose; DN12, 5 x 2, 0	**GS60003165**		
5	Hose clip; D12-22 x 9	**GS2802105**		
6	Reinforced hose; DN13 x 3, 5	**GS4002002**		145 mm; meter item
7	Spiral hose; NW18, 5 x 1500	**GS4001045**		
8	Hose clip; D20-30 x 12	**GS2802109**		
9	Double nipple; D21, 80 x 49; D19	**GS60003399**		
10	Hose clip; D20-30 x 12	**GS2802109**		
11	Shaped hose; DN18 x DN22; 814	**GS60003281**		
12	Reinforced hose; DN19, 4 x 3, 5	**GS4001016**		345 mm; meter item
13	Deaeration kit	**GS60003514**		
13.1	O-ring; 24 x 3	**GS2707066**		
13.2	Hose clip; D20-30 x 12	**GS2802109**	2	
13.3	Hose clip; D10-16 x 9	**GS2802307**		
13.4	Round cap; D11 x 20	**GS3503029**		
13.5	Ball; D14, check valve	**GS2801508**		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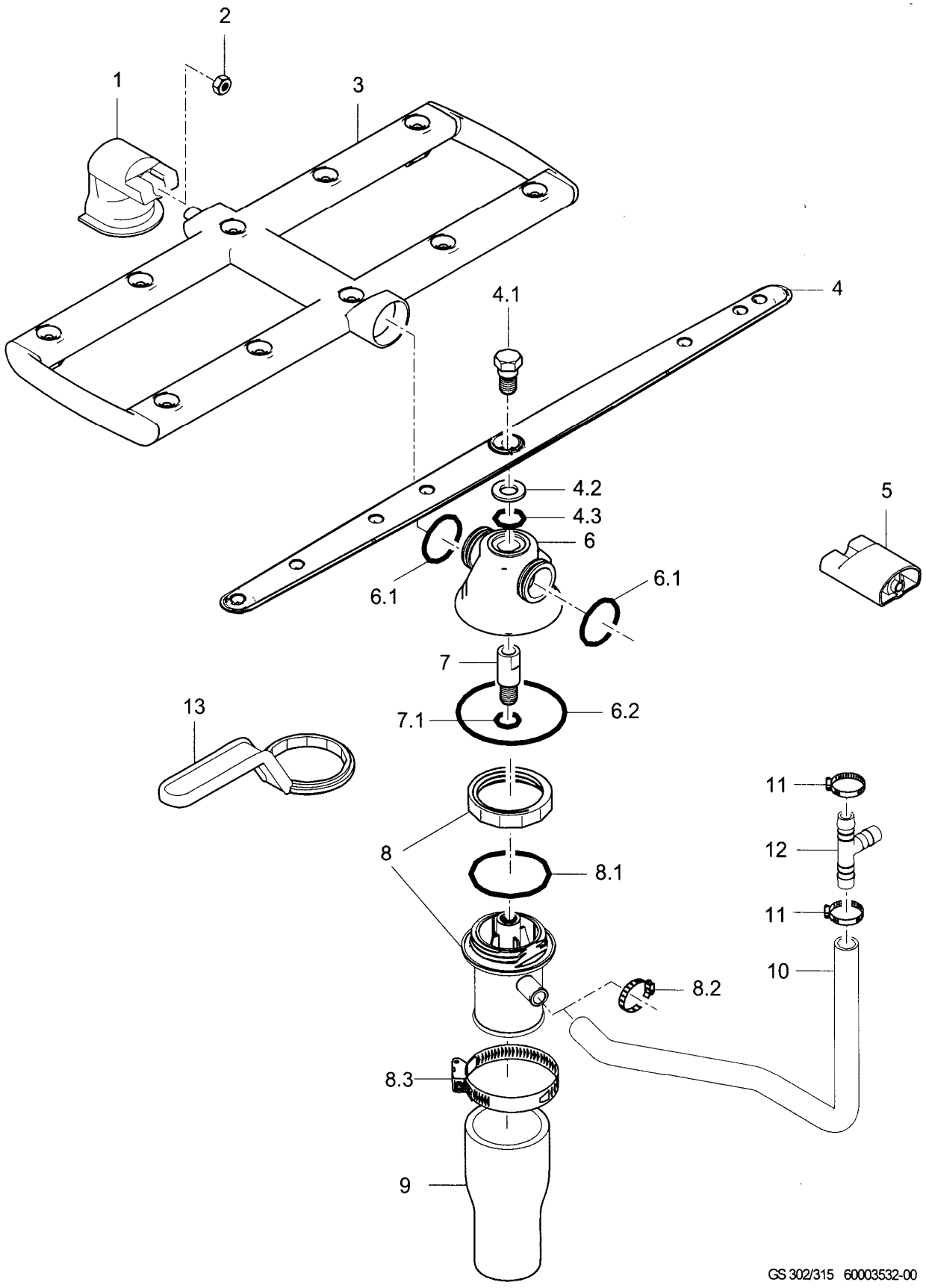
Wash Pump

Item	Description	Parts No.	Pc.	Notes
1	Pump motor kit; 240V/1 PH/60HZ	**GS60003595**		We recommend ordering the set of pump running wheels, as well, when the motor is replaced.
1	Pump motor kit; 208V/1 PH/60HZ	**GS60003596**		We recommend ordering the set of pump running wheels, as well, when the motor is replaced.
1.1	Sealing for pump system kit	**GS60003591**		
1.2	Capacitor; 10YF 400V;D35 X 80	**GS3113120**		
1.2	Capacitor; 12YF 400V	**GS3113122**		
2	Spacer washer; 1,25 X 18 X 28	**GS60003298**		
3	Hexagonal nut; M5	**GS2105302**	4	
4	Impeller with sealing kit; D75	**GS60003593**		60Hz
4.1	Sealing for pump system kit	**GS60003591**		
5	Hose clip; D32-52 X 12	**GS2802110**	2	
6	Collector	**GS60003620**		
6.1	Sealing for pump system kit	**GS60003591**		
7	Drain pump; 220-240V/60HZ	**GS3102493**		
7	Drain pump; 200V/60HZ	**GS3102495**	3	
8	Pump clip	**GS62003437**	3	
8.1	Sotted hexagon bolt; M5 X 40	**GS2001324**	3	
9	Filter insert	**GS60003259**		Tool for exchanging drain pot
10	Cylinder head screw; M5 X 20:8,8	**GS2009337**		
11	Serrated lock washer; A5,3	**GS2202316**		
12	Washer; D3,3 X D10 X 1,0	**GS2201305**		
o.P.	Assembly device, complete	**GS60003450**		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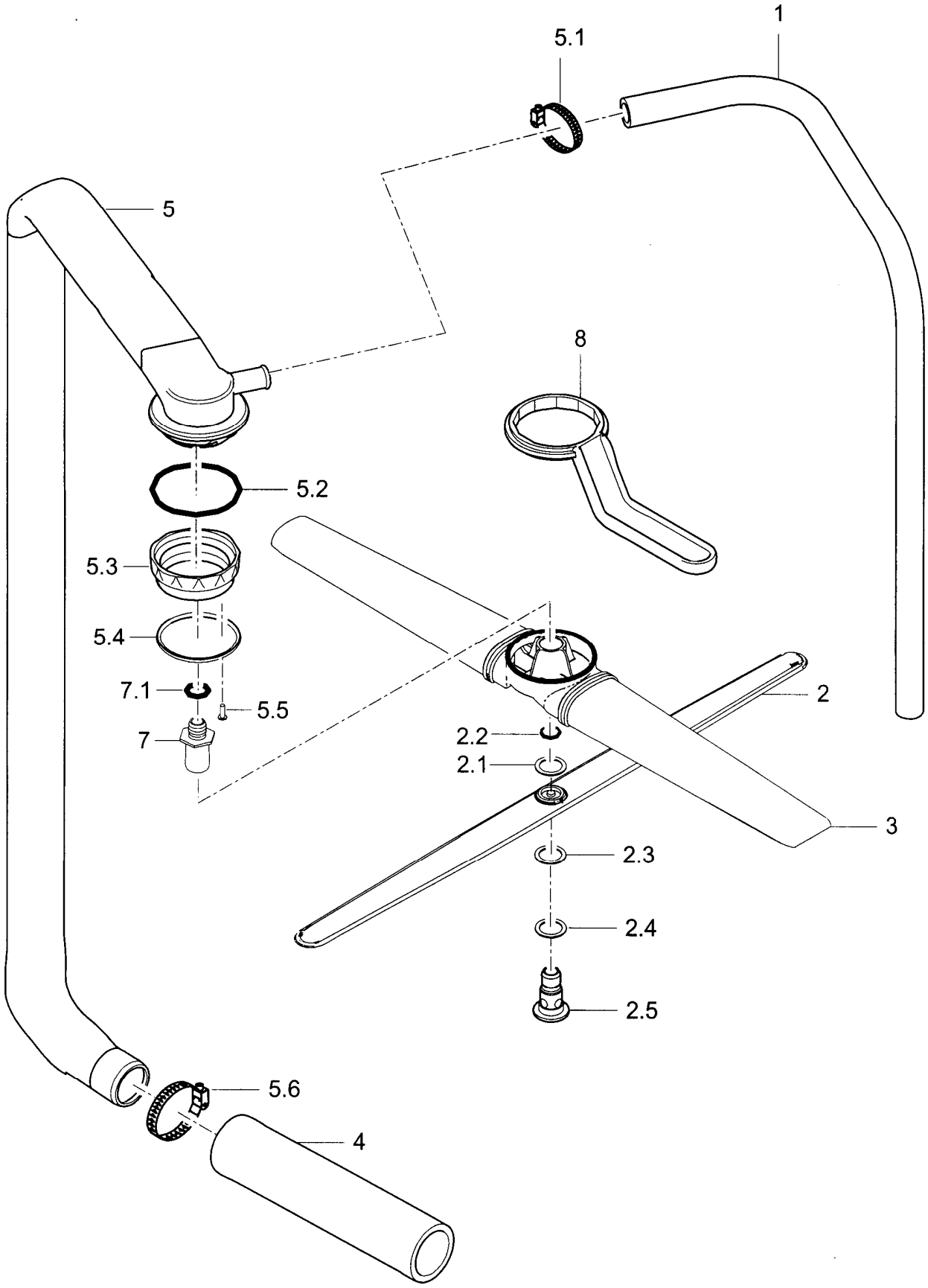
Bottom Washing/Rinsing System

Item	Description	Parts No.	Pc.	Notes
1	Wash unit support; 70,70 LG	**GS60003435**		
2	Self-locking nut with serrated surface; M5	**GS2101310**	2	
3	Wash unit cpl	**GS60002994**	2	
4	Revolving rinse arm kit	**GS60003515**		
4.1	Revolving arm screw; M12 X 30; SW20	**GS60003045**		
4.2	Washer; D12,5 X D24 X 2,5	**GS60003386**		
4.3	O-ring; 10 X 2,5	**GS2707030**		
5	Wash unit support; 58,04 LG	**GS60002999**		
6	Distributor top kit	**GS60003516**		
6.1	O-ring; 28 X 2,5	**GS2707067**	2	
6.2	O-ring; 66 X 2,5	**GS2707011**		
7	Revolving rinse arm spindle; D16 X 44,5;M12	**GS60003043**		
8	Distributor bottom kit	**GS60003518**		
8.1	O-ring; 56 X 3	**GS2707064**		
8.2	Hose clip; D14-24 X 9	**GS2802108**	2	
8.3	Hose clip; D47-67 X 12	**GS2802115**		
9	Reducing hose; DN34 X DN48;90	**GS460003025**		
10	Reinforced hose; DN13 X 3,5	**GS4002002**		460mm
11	Hose clip; D14-24 X 9	**GS2802108**		
12	T-hose socket; D13	**GS2906508**		
13	Double hex ring spanner; SW61,5	**GS60003376**		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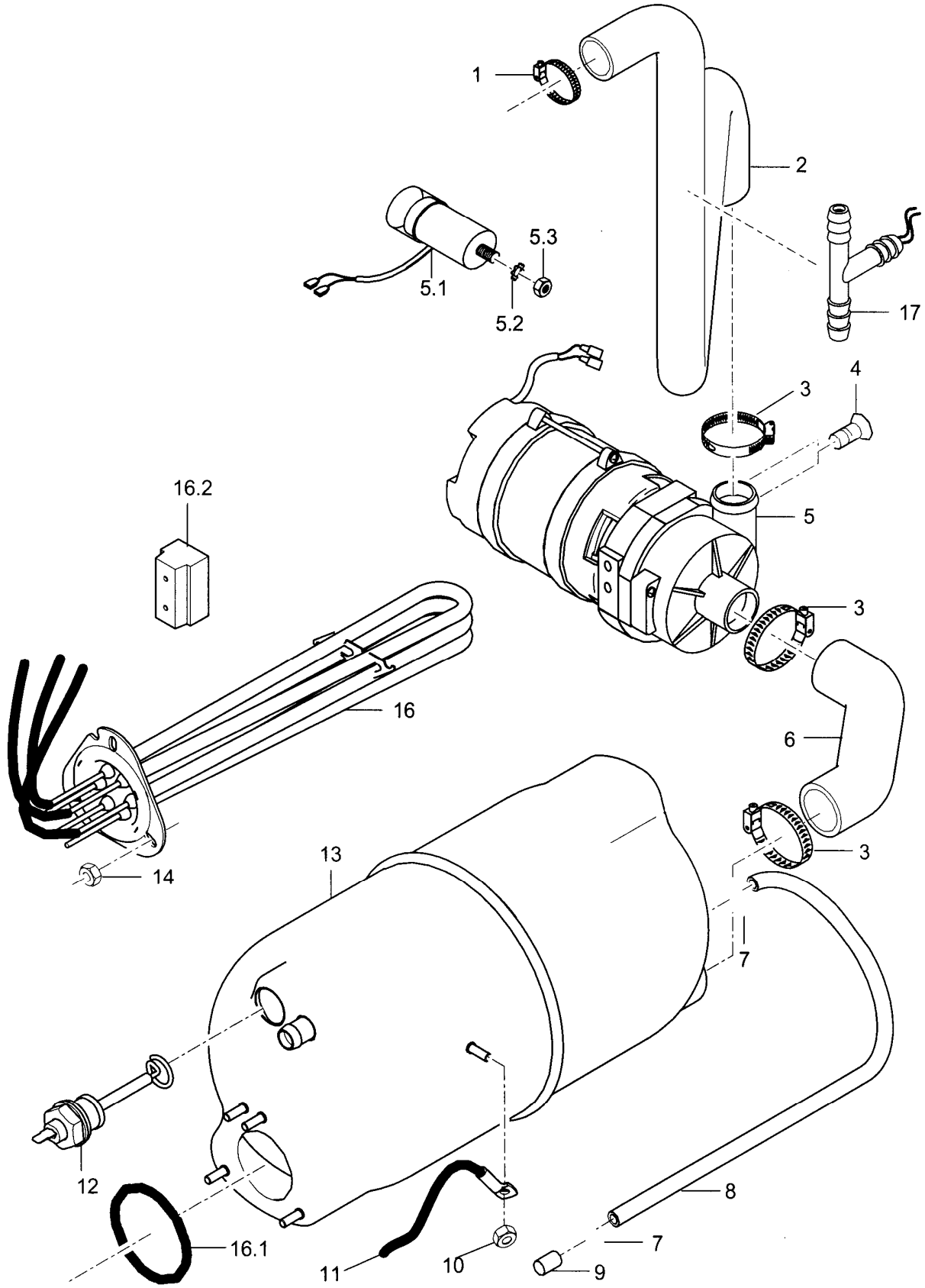
Top Washing/Rinsing System

Item	Description	Parts No.	Pc.	Notes
1	Shaped hose; DN12,5 X DN14 X 3,5	**GS60003160**		
2	Revolving rinse arm kit	**GS60003515**		
2.1	Washer; D14,10 X D20 X 1,0	**GS60003487**		
2.2	Locking ring; D12 X 0,8	**GS60003023**		
2.3	Washer; D16,1 X D22 X 1,0	**GS60003264**		
2.4	Sliding ring; D22 X D16,30 X 1	**GS60003173**		
2.5	Revolving arm screw; M12 X 31,3; D20	**GS60003022**		
3	Set of rotary arms washing	**GS60003520**		
3.1	Seal ring; D53,4 X D57,8 X 2,0	**GS60003021**		
4	Reinforced hose; DN32 X 4,0	**GS4002004**		190 mm
5	Washing distributor top kit	**GS60003519**		
5.1	Hose clip; D14-24 X 9	**GS2802108**		
5.2	O-ring; 56 X 3	**GS2707064**		
5.3	Lock nut; S54 X 4; D57	**GS60003005**		
5.4	Seal ring; D53,4 X D57,8 X 2,0	**GS60003021**		
5.5	Sheet metal screw; ST 3,9 X 9,5	**GS2020307**		
5.6	Hose clip; D32-52 X12	**GS2802110**		
7	Revolving rinse arm spindle kit	**GS60003616**		
7.1	O-ring; 10 X 2,5	**GS2707030**		
8	Double hex ring spanner; WS61,5	**GS60003376**		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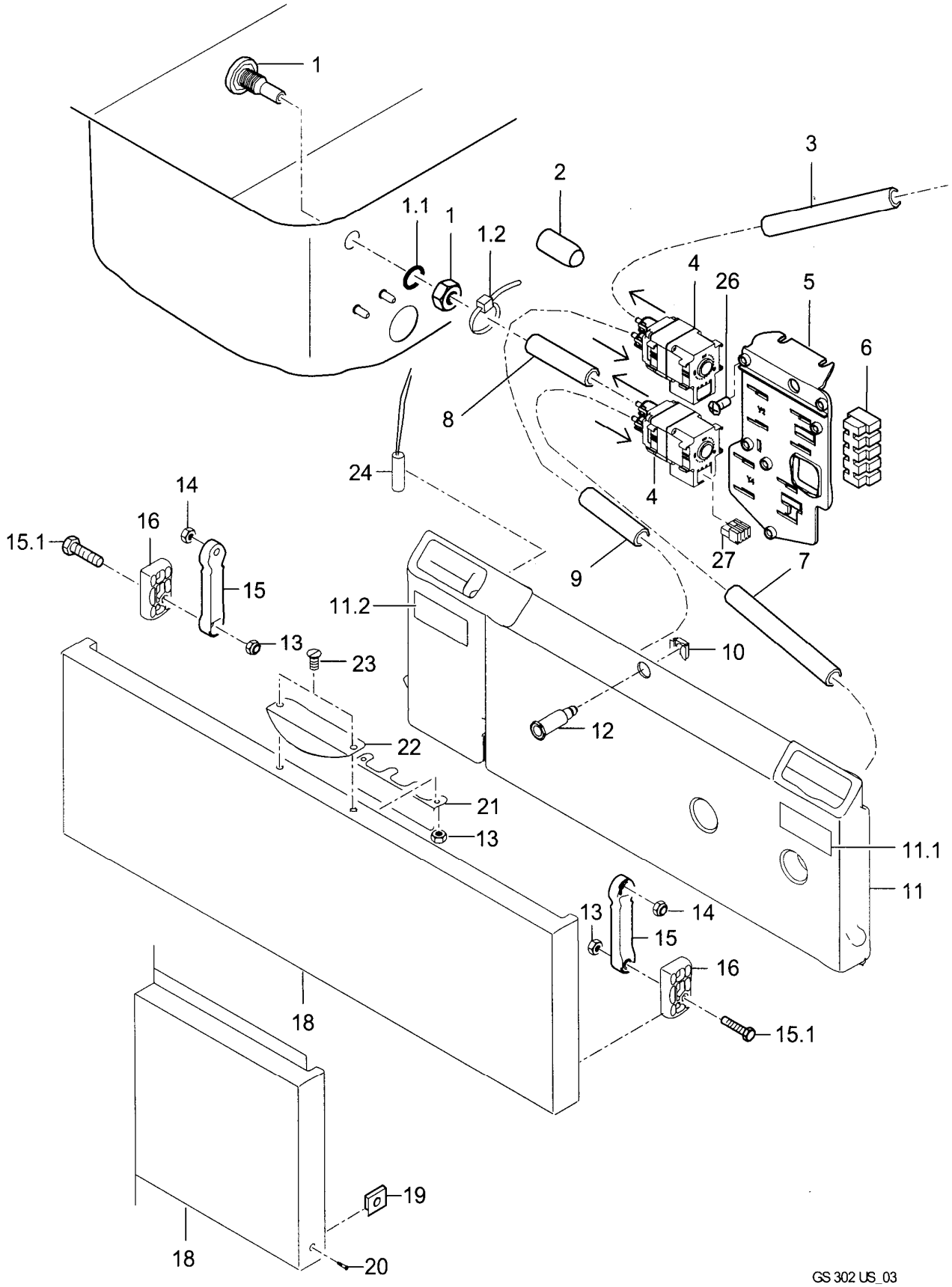
Pressure Independent Boiler

Item	Description	Parts No.	Pc.	Notes
1	Hose clip; D14-24 X 9	**GS2802108**		
2	Shaped hose; DN12,5 X DN25; 582	**GS60003159**		
3	Hose clip; D24-36 X 12	**GS2802111**		
4	Countersunk screw; M6 X 16	**GS2012319**	2	
5	Pump 0.27kW 3/3; 220V/240V/1/60HZ	**GS3102461**		
5	Pump 0.27kW 3/3; 200V/1/60HZ	**GS3102463**		
5.1	Capacitor; 5 mikro F	**GS3113099**		
5.2	Spring washer; B8	**GS2303301**		
5.3	Hexagonal nut; M8	**GS2101305**		
6	Shaped hose; DN25 X 4,0; 140 w/NSF sensor	**GS60002973**		Final rinse temperature
7	Nylon clip; 100 X 2,5	**GS3120175**		
8	Hose; DN5 X 1,5	**GS4001024**		900 mm
9	Bolt; D6 X 30	**GS70200383**		
10	Self-locking nut with serrated surface; M5	**GS2101310**		
11	Boiler thermal sensor with cable	**GS3125051**		With heat conducting film
12	Built-in electrode; D22 X 111	**GS3113163**		
13	Pressure independent boiler	**GS60002917**		
14	Hexagonal nut; M5	**GS2101203**	3	
16	Heater with fuse; 2.6kW; 1 X 220-240V	**GS60003605**		
16	Heater with fuse; 2.6kW; 1 x 208V	**GS60003607**		
16.1	O-ring blue; 46 X 6,0	**GS2707071**		
16.2	Appliance terminal	**GS3109227**		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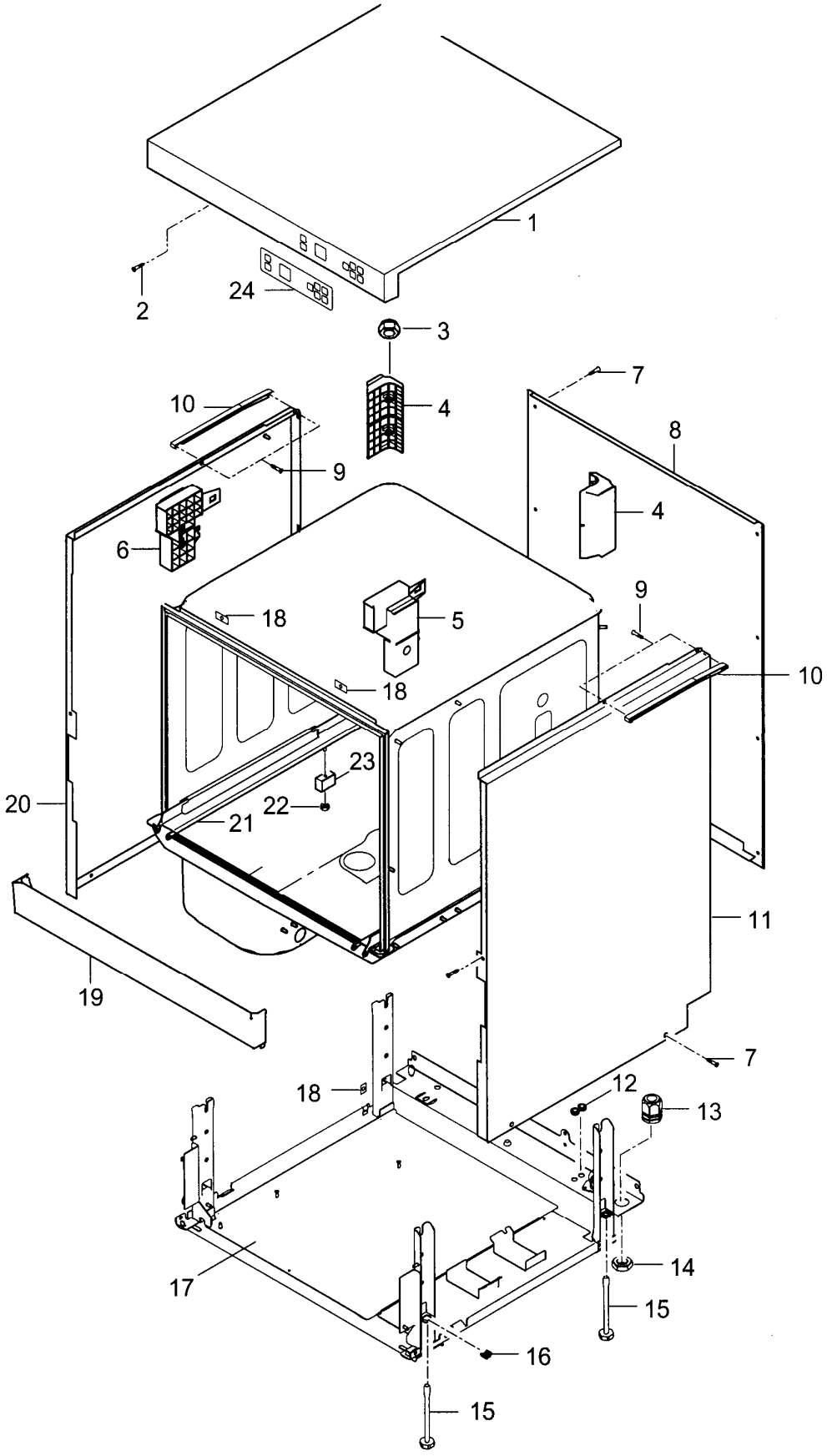
Dosage

Item	Description	Parts No.	Pc.	Notes
1	Dispenser nipple kit; M10 X 29; SW5	**GS61005883**		
1.1	O-ring; 10 x 2,5	**GS2707030**		
1.2	Nylon clip; 100 X 2,5	**GS3120175**		
2	Press-on cap; D6 x 15	**GS3503023**		
3	Hose; DN5 x 1,5	**GS4001024**		900 mm
4	Dispenser MP28; 180-260V/50-60HZ	**GS3102450**		
5	Adapter plate; 1,5 X 80 X 100	**GS60003688**		
6	Blinding post	**GS3109230**		For connecting external disposer
7	Hose; DN5 X 1,5	**GS4001024**		600mm
8	Hose; DN5 X 1,5	**GS4001024**		300mm
9	Hose; DN5 X 1,5	**GS4001024**		800mm
10	Captive nut; M8	**GS2113006**		
11	Detergent container	**GS60003646**		
11.1	Label “Detergent”; 0,2 X 28 X 65	**GS60003330**		
11.2	Label “Freshwater Rinse”; 0,2 X 28 X 65	**GS60003310**		
12	Magnet support	**GS60003643**		
13	Hexagonal nut; M4	**GS2105300**		
14	Hexagonal nut; M5	**GS2105302**	3	
15	Set of levers	**GS60003778**		
15.1	Hexagon screw; M4 X 18	**GS2001320**		
16	Profile; 12,5 X 28 X 50	**GS60003569**		
18	Housing panel front	**GS60003546**		
19	Sheet metal nut; B 3,9	**GS2117100**		
20	Sheet metal screw; ST 3,9 X 13	**GS2021302**		
21	Elbow; 1,0 X 43 X 100	**GS60003633**		
22	Handle kit	**GS60003650**		
23	Countersunk screw; M4 X 10	**GS2012312**		
24	Magnetic switch; 25,5 X D5,75; 2250 LG	**GS3124240**		
26	PT screw; KB 60 X12	**GS2017308**	2	
27	Macro-module plug; Rast5	**GS3112094**		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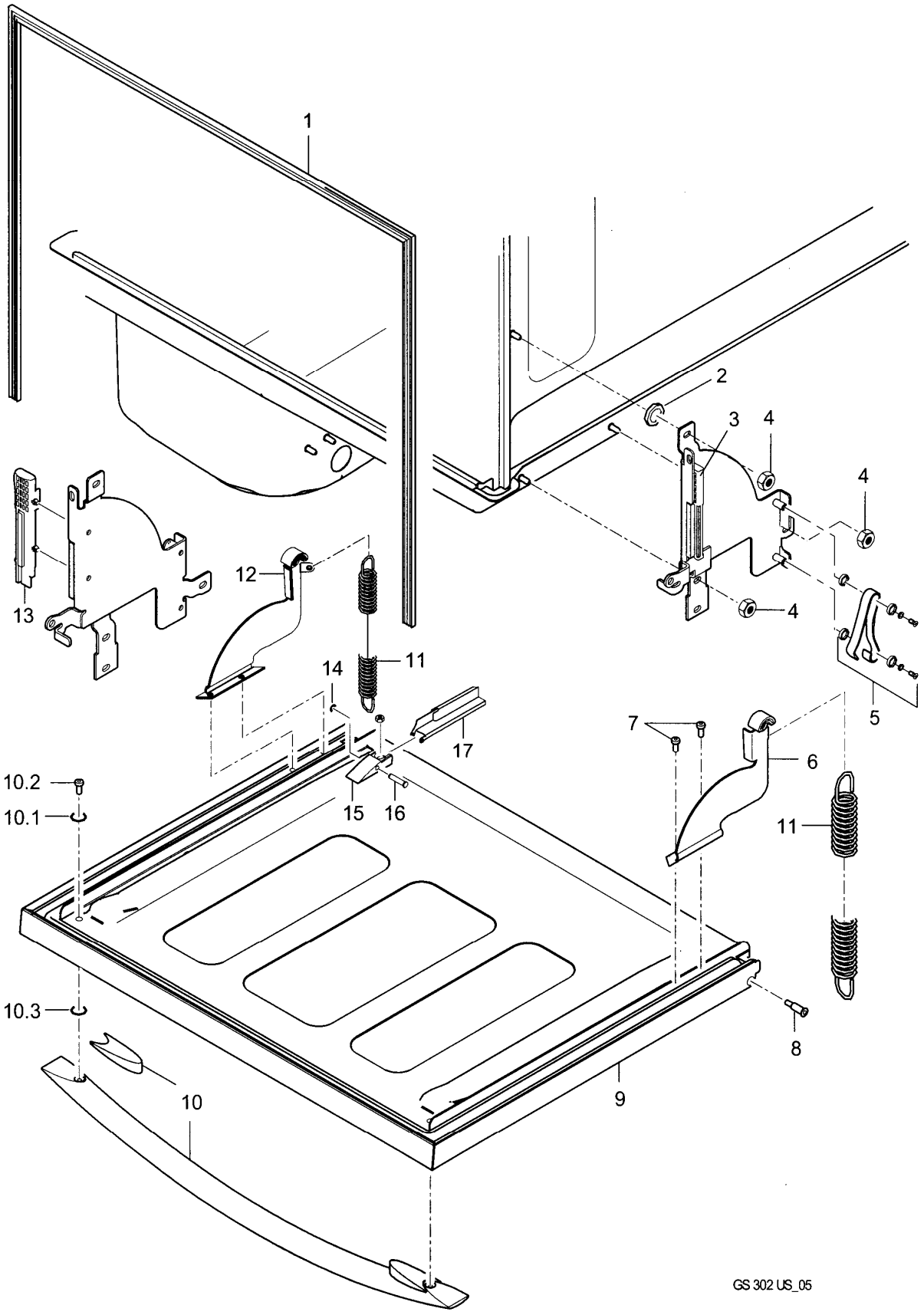
Chassis, Container and Paneling

Item	Description	Parts No.	Pc.	Notes
1	Cover plate cpl.	**GS60002934**		
2	Sheet metal screw; ST 3,9 X 13	**GS2021302**	2	
3	Self-locking nut with serrated surface; M5	**GS2101310**		
4	Support corner rear	**GS60003010**	2	
5	Support corner front right	**GS60003009**		
6	Support corner left	**GS60003008**		
7	Sheet metal screw; ST 3,9 X 13	**GS2020310**		
8	Rear cover	**GS60003655**		
9	Sheet metal screw; ST 3,9 X 9,5	**GS2020313**		
10	Slide for cover panel; 250, 50 LG	**GS60003501**		
11	Housing panel right compl.	**GS60003343**		
12	Hose spout; 6,25 X D15; D8,5	**GS61004890**	3	
13	Cable gland; M25 X 1,5; 11-17 MM	**GS3110153**		
14	Hexagonal nut; M25 X 1,5 X 6,0; SW32	**GS3110163**		
15	Adjustable foot; M8 X 130; SW24	**GS60003097**	4	
16	Captive nut: M8	**GS2113006**	4	
17	Bottom plate, complete	**GS60003768**		
18	Sheet metal nut; B 3,9	**GS2117100**		
19	Panel	**GS60003754**		
20	Housing panel left compl.	**GS60003342**		
21	Rack carrier	**GS80002914**		
22	Self-locking nut with serrated surface; M5	**GS2101310**		
23	Runner; 20 X 28,5 X 40	**GS80002913**		
24	Pad “Operating Panel”; 0,175 X 50 X 180	**GS3124223**		
O.P.	Set of vapor protectors, cpl.	**GS80002865**		Additional equipment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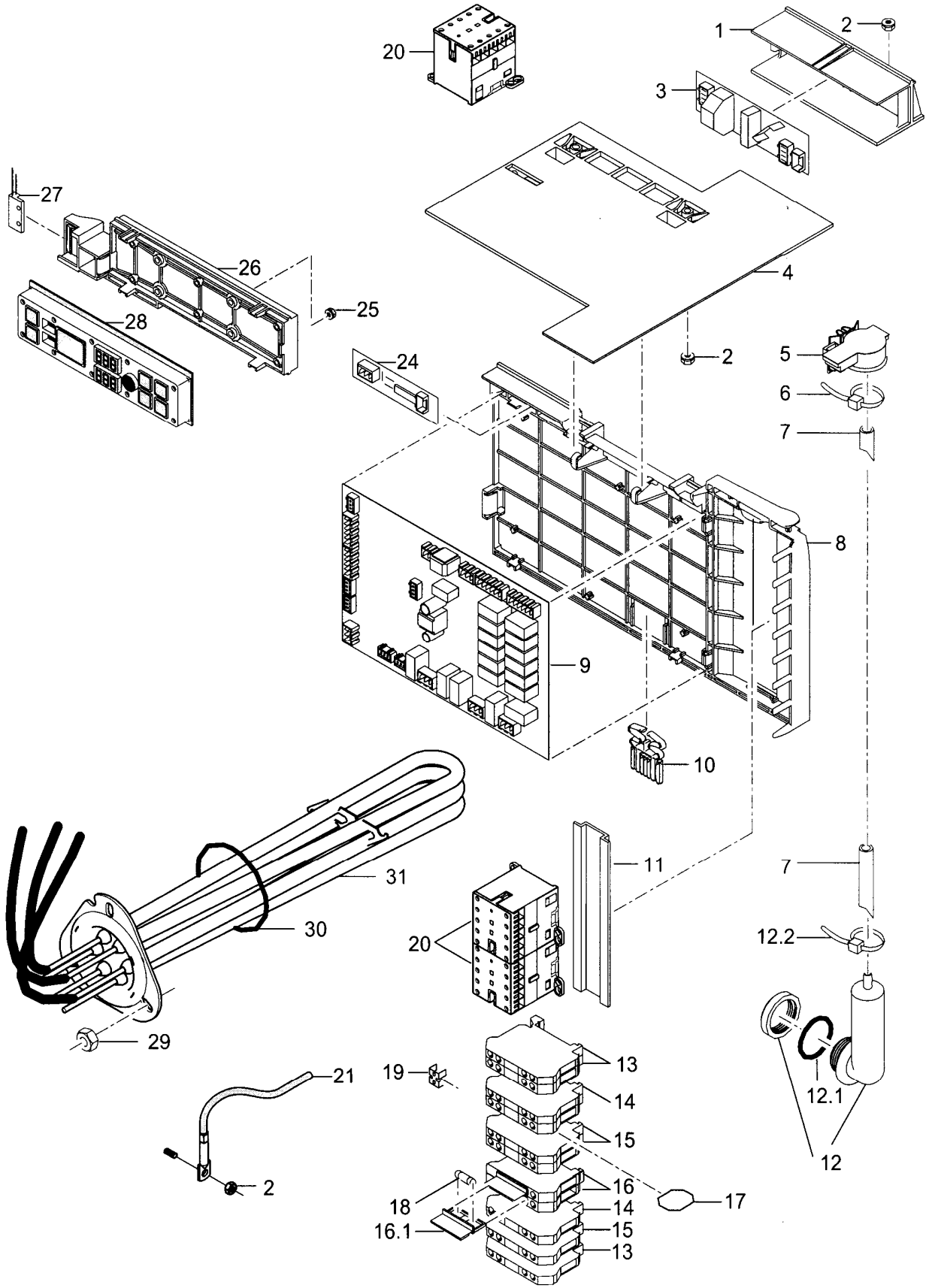
Door

Item	Description	Parts No.	Pc.	Notes
1	Door seal	**GS60003066**		
2	Washer; D5,3 X D15 X 1,2	**GS2205301**		
3	Right stop	**GS60003411**		
4	Hexagonal nut M5	**GS2105302**	3	
5	Leaf spring kit	**GS60003744**		For both sides
6	Brace right, offset, cpl.	**GS60003231**		
7	Cylinder head screw; M5 X 12	**GS2003307**	2	
8	Door bearing bolt; D9,5 X D7,0 X M5; SW4	**GS60003147**	2	
9	Door cpl.	**GS80002919**		Without door handle
10	Door handle kit	**GS60003522**		
10.1	O-ring; 5 X 1,2	**GS2707070**	2	
10.2	Oval head screw with hexagonal socket; M5 X 30	**GS2010308**	2	
10.3	O-ring; 6 X 2	**GS2707012**	2	
11	Tension spring; L0=195; L1=360; F1-90N	**GS60002782**		
12	Brace left, offset, cpl.	**GS60003230**		
13	Left stop	**GS60003410**		
14	Lock washer; D6	**GS2310305**	2	
15	Wedge; 16,87 X 25,5 X 72	**GS80002921**	2	
16	Bolt; D10 X 34; D7	**GS80002962**	2	
17	Rack carrier	**GS80002914**		
O.P.	Silicone adhesive Elastosil E43; 90 ML	**GS3403012**		For door seals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Electrical Parts

Item	Description	Parts No.	Pc.	Notes
1	Protective cover UL/CSA; white; WEISS	**GS60003730**		
2	Self-locking nut with serrated surface; M5	**GS2101310**	4	
3	Soft start WSA4	**GS3113180**		
4	Cover UL/SCA; white; WEISS	**GS60003729**		
5	Pressure transmitter sensor; 0-30MBAR; 5VDC/0, 5-3.5V	**GS3126044**		
6	Nylon clip; 100 X 2,5	**GS3120175**		
7	Hose; DN5 X 1,5	**GS4001024**		860 mm
8	Assembly plate UL/CSA; white; WEISS	**GS60003728**		
9	Program control WPS MAX; 180-265V; 50-60HZ	**GS3105140**		
10	Latch UL/CSA; white; WEISS	**GS60003740**		
11	Snap-on rail; 1,0 X 35 X 185	**GS60003244**		
12	Air chamber repair kit	**GS60003525**		
12.1	O-ring; 24 X 3	**GS2707066**		
12.2	Nylon clip; 100 X 2,5	**GS3120175**		
13	Double terminal, green-yellow	**GS3109153**	3	
14	Double terminal, gray	**GS3109151**		
15	Double terminal, blue	**GS3109152**		
16	Universal fuse terminal	**GS3109063**	2	
16.1	Fuse plug	**GS3109072**		
17	Isolating disk; 14 X 16	**GS3109169**		
18	Fuse; 250V 6,3A	**GS3111043**	2	
19	Fixed bridge; 2-polig; FB 2-6	**GS3109126**		
20	Contactor B7:3H;10, 220-255V/50-60HZ	**GS3104154**	2	
20	Contactor B7:3H;10, 208V/50-60HZ	**GS3104175**	2	
21	Tank thermal sensor with cable	**GS3125050**		With heat conducting film
24	Level sensor , electronic; 12V; 7MA; 80 X 20 MM	**GS3113164**		Pressure independent boiler
25	Hexagonal nut; M5	**GS2101312**	4	
26	Support for operating panel	**GS60003350**		

Electrical Parts (CONTINUED)

Item	Description	Parts No.	Pc.	Notes
27	Magnetic switch; 32 X 14, 9 X 6, 9; 400LG	**GS3124229**		
28	Operating panel; 25 X 55 X 210	**GS3124222**		
29	Hexagonal nut; M5	**GS2101203**		
30	O-ring; 46 X 6,0	**GS2707015**		
31	Heater with fuse; 2.5kW; 1 X 220-240V	**GS3103214**		
31	Heating element 2.6kW plus fuse; 1 X 200-208V	**GS3103215**		
O.P.	Cable buse; 5 X 0,34QMM	**GS60003174**		